"Panama" Line

Concrete Block Machinery

The J. B. Foote Foundry Co.

Fredericktown, Ohio

Concrete Block Machinery
Concrete Mixers

1939
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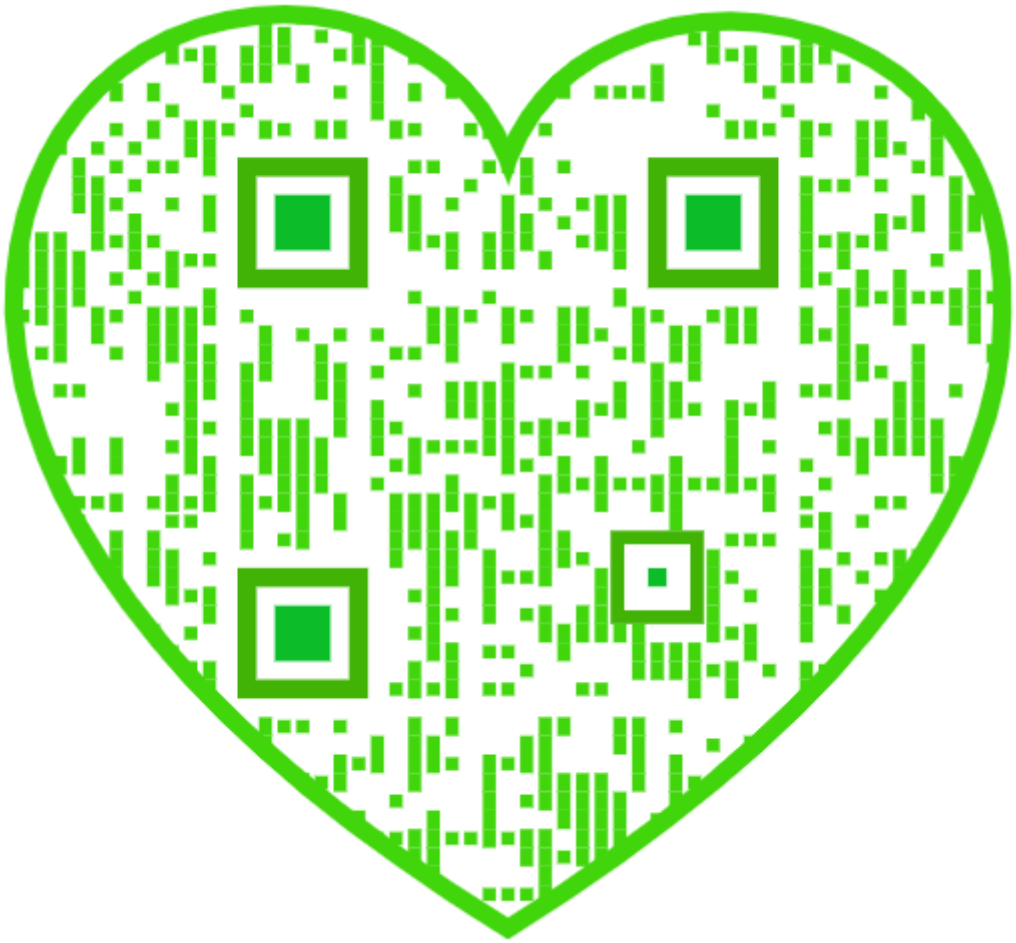

"Panama Line"

The Complete Line—Uniformly High in Quality

Concrete Block Equipment

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TWENTY years of specializing experience—the most complete line in existence. One high standard of quality. Each and every product guaranteed to be of good workmanship and material.

These facts assure the purchaser of "Panama" Concrete Machinery of an entirely satisfactory transaction regardless of whether he buys a concrete mixer, the entire layout for a complete block making plant or a simple mold.

Ability to select from a complete line, every product of which is of the very highest class and specifically designed to work with other "Panama" machines, assures a harmonious working plant and a high class product that makes a strong selling appeal to the user.

The wide range of equipment available at prices that suit every pocket book, enables the individual to buy a single machine to meet his own individual needs if desired while the block manufacturer just starting business can purchase a simple outfit and add to it as the growth of business justifies.

The success of this business is based upon and inseparable from the success of those who buy "Panama" Line Machinery. Realizing this, it has always been our policy to recommend the equipment best suited to the specific needs and locality of each individual without regard to the size of the order involved.

Those starting in the block making business or interested in the purchase of equipment to meet their own needs are requested to write for information and advice which will gladly be given free of charge and entailing no obligation to purchase.

The J. B. Foote Foundry Co.

Fredericktown, Ohio

Concrete Block Making is a Profitable Activity

For the Manufacturer, the Building Contractor, the Farmer and the Home Builder

A few years ago concrete products were regarded as "inferior imitations"—today they are considered a necessary part of almost every structure; in fact, few buildings are now erected without the use of concrete products in one way or another.

During this time the business making of concrete products has been elevated from the so-called "one-horse" proposition to a level equal to and essential with the brickmaker, stone quarrier and other building industries.

The quick availability of these products, the ever-improving beauty and quality, and the low cost in comparison with other products that compare with them, have all contributed to the growing standing of the industry.

As a result, concrete products making has become a very profitable business for the manufacturer, the building contractor who has a fairly large demand and the farmer or home builder who wants to turn his spare time into money.

Here Are a Few Advantages of Concrete

Concrete block construction costs less than stone or brick, and in some localities less than frame construction. In any event it will cost but very little more than lumber, and when the saving in repairs and painting is figured, concrete is by all means the cheapest to buy.

No Repairs or Painting Expense

Contrary to other kinds of construction, concrete improves with age, and requires no painting and practically no repairs, even after being in use for several years.

Fireproof, Earning Low Insurance Rates

Concrete construction, whether of block, brick or poured in forms, is fireproof. This is a strong feature, particularly in small towns where there is little or no fire protection. Fire insurance rates on a concrete building are much lower than on frame construction.

Usually high fire insurance rates, apply to frame farm buildings, as fire protection generally is not available, and when a fire does break out it usually destroys all buildings on the place. You can save from one-third to one-half in insurance rates on concrete buildings.

Fire insurance seldom covers your complete loss; it surely will not cover the loss of time and labor to replace what was destroyed.

Concrete blocks will withstand enormous heat, and should a fire break out in a concrete block building, it will be kept from spreading to other buildings. A hay or straw stack fire, which is quite common, is not liable to set fire to the contents of other buildings if they are built of concrete blocks.

Cool in Summer—Warm in Winter

Almost all kinds of buildings constructed from concrete have a "dead air space" which is a most effective non-conductor of heat and cold.

For this reason concrete houses and buildings are cooler and more comfortable in summer and warmer and less costly to heat in winter.

A Valuable Re-Sale Asset

Concrete buildings constitute an asset in the event of wanting to sell a property, that is far greater than that of wood and greatly in excess of its increased cost over any other kind of construction.

You can build with concrete at smaller cost—enjoy years of comfort and satisfaction and then prove the wisdom of your action by getting a very high price in event of selling.

Concrete Construction is Beautiful and Practical

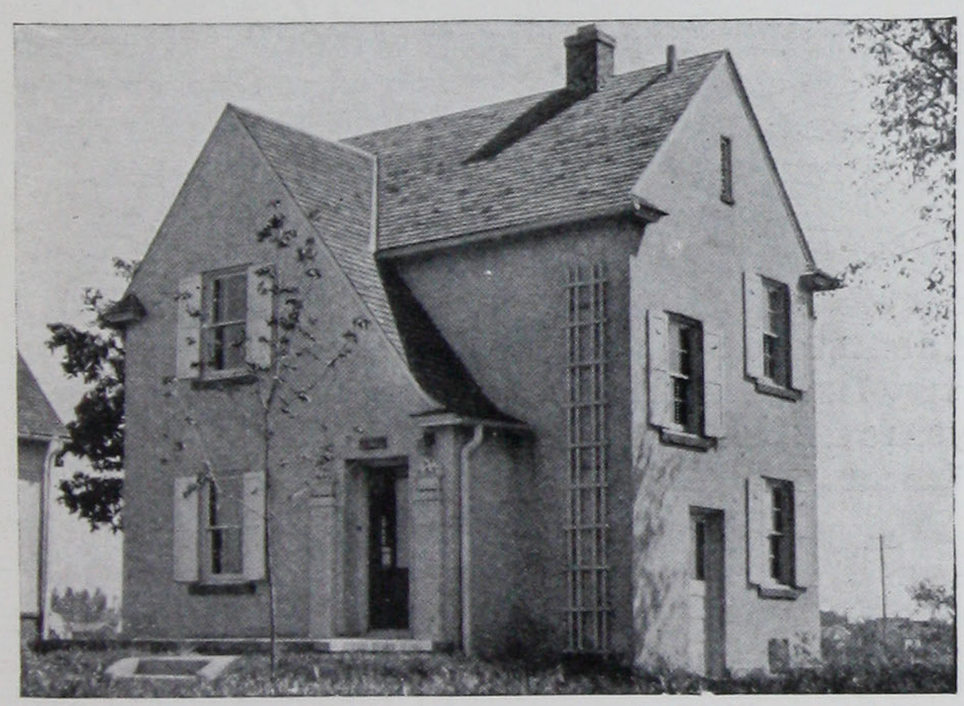
Suitable for Buildings of All Types and Various Kinds of Exterior Treatment

"Panama" Line machinery produces blocks of unusual texture and beauty. The use of different facing materials and coloring matter and the selection of different kinds of rock facing from our complete line makes possible the building of exceptionally beautiful structures.

Products made in Panama concrete machinery are being used for residences, churches, factories, shops, stores and farm buildings; in fact, in all kinds of buildings both large or small.

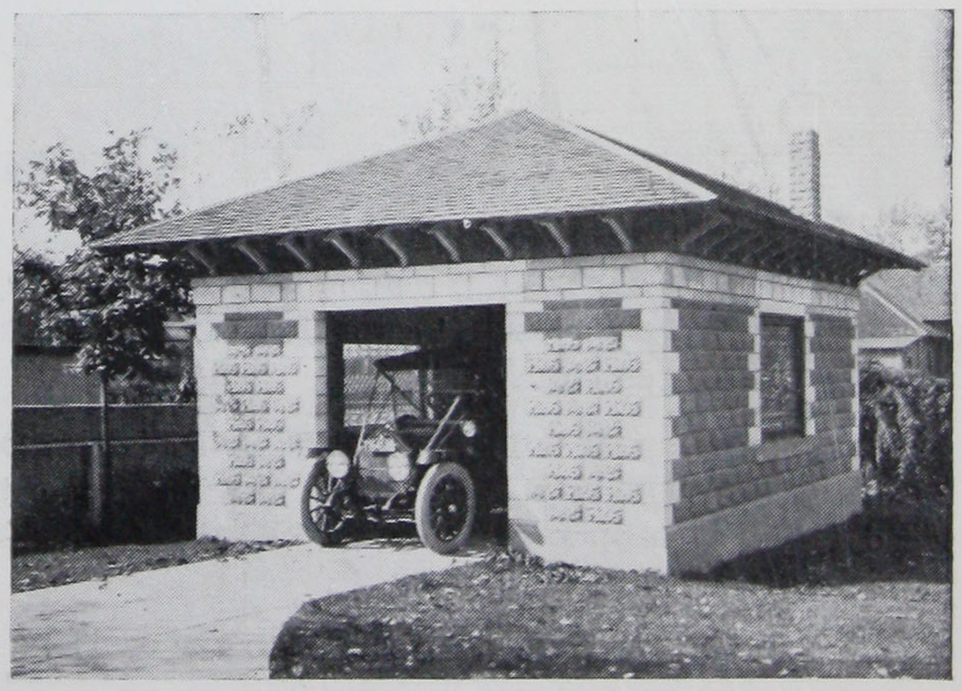
Even in buildings constructed largely of brick, concrete products are quite frequently used. Window stones, wall coping, porch piers, columns and balustrades add much to brick construction, and have a tendency to relieve the monotony of one kind of material.

In building a concrete block house you can have your choice of an almost unlimited variety of designs, color schemes, and other means of decoration. Following are a few practical suggestions.



Stucco Plaster over Concrete Blocks with protruding corner stones makes a very pleasing effect as illustrated at the left. Such a building is practically everlasting and requires little, if any, repairing. It is permanent in every sense of the word, both in material and design. When you consider this fact you can see what a great saving such a building will make for you in the long run.

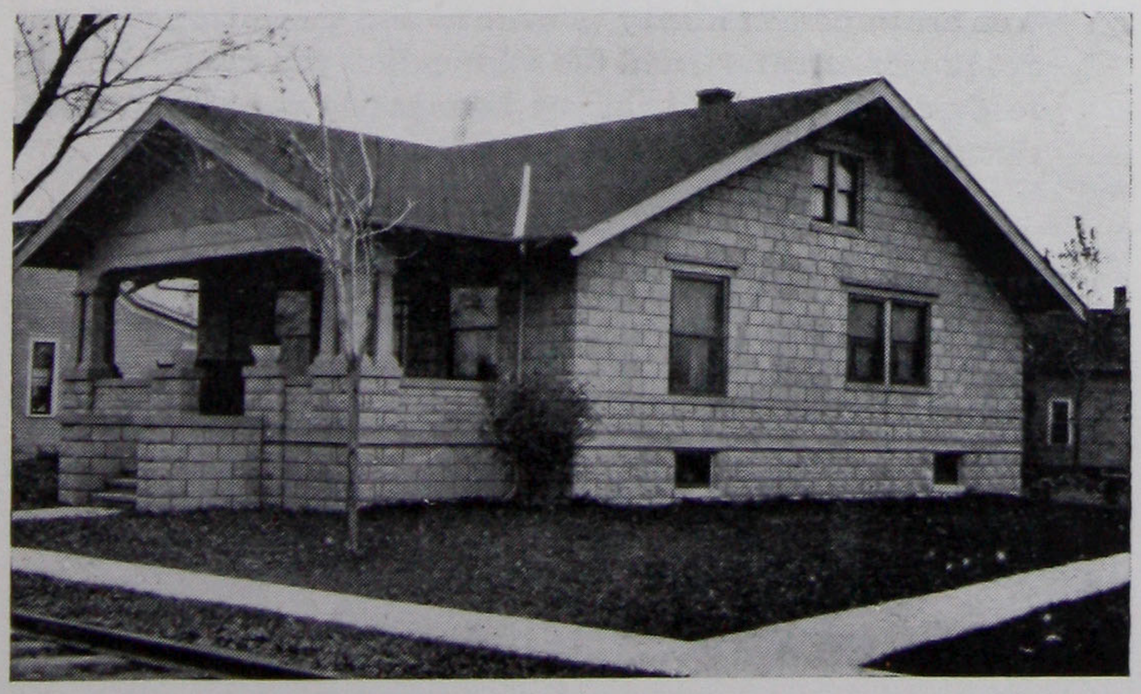
Stucco work costs but a trifle on concrete buildings. The block which is used for the body in such buildings, is the ordinary rough block, having one mixture of material throughout.



Another pleasing effect is obtained by completely covering a concrete block house with stucco, as illustrated at the right.

Stucco finish on concrete block construction also gives the building a massive one-piece appearance. The plaster finish on blocks will not crack or become disfigured, as is often the case when wood or metal lath is used.

Stucco plaster on a concrete block building gives the finished appearance of expensive reinforced concrete construction, and saves the cost of expensive reinforcing, forms and labor. Block constructed for all ordinary buildings is as suitable as reinforced concrete and the work can be done by any laborer.



There is no limit to the pleasing effect it is possible to obtain by tinting the stucco plaster or face of blocks with mineral colors.

This may be applied in panels to different parts of the building, making a very artistic design, or one can make the body one color and the trimmings such as coping, caps, sills, porch materials, corners, etc., a different color, giving the effect of a painted building but without the expense of frequent repainting as these colors are permanent.

The Making of Concrete Products Offers the Greatest Money Making Opportunity in Existence Today

The concrete block business has made wonderful strides in the past few years but is still an infant "in swaddling clothes" compared to the possibilities.

Capable men of foresight and vision are engaging in the business, launching advertising and sales campaigns and the entire industry is benefitting by it.

Many factors contribute to this increasing activity.

First: The low cost of concrete products.

Second: The general recognition of the beauty and practicability of these products.

Third: The increasing use of concrete, few buildings being erected today without it being used in one place or another.

Fourth: Ability to obtain products without the delays usually experienced in getting steel and wood.

Fifth: The rapidly exhausting supply of wood.

Sixth: The comparatively small capital required to start in business.

Seventh: The fact that no previous experience is necessary, owing to the high state of perfection and automatic operation of "Panama" Concrete Machinery.

The manufacture of concrete blocks, concrete brick, concrete fence posts and other concrete products is profitable, whether you manufacture them for your own use or for sale. If for your own use you can make them during your spare time, on rainy days or whenever it is impossible to look after your regular work, thus realizing a profit or gain which otherwise might be lost.

In manufacturing concrete products for sale there is a big profit, as the cost of materials used is comparatively low and by using efficient, accurate machinery, such as we furnish, your labor cost is also very low. The net cost of your finished products will enable you to sell them at a good profit to yourself and at lower prices than are usually asked for products of other material.

Ordering Instructions

IN ORDERING give the full catalog number of the machine or mold you wish to buy and carefully observe the conditions stated under "specifications."

Be sure to sign your full name and address plainly, so there will be no possibility of a mistake. If your shipping point is different from your postoffice, give shipping point as well as the postoffice.

Be sure that your address appears on the envelope in the upper left hand corner, and that it is properly addressed to us.

COMPLETE DIRECTIONS for operation are furnished with each machine or mold. Even if you have had no previous experience, you will be able to understand and operate it thoroughly and turn out the best of products.

OUR GUARANTEE—We guarantee "Panama" machinery to be perfect in material and workmanship and to handle satisfactorily the work for which it is recommended. We agree to replace without additional charge to the purchaser, any machine or part of machine that gives out on account of defect in material or workmanship.

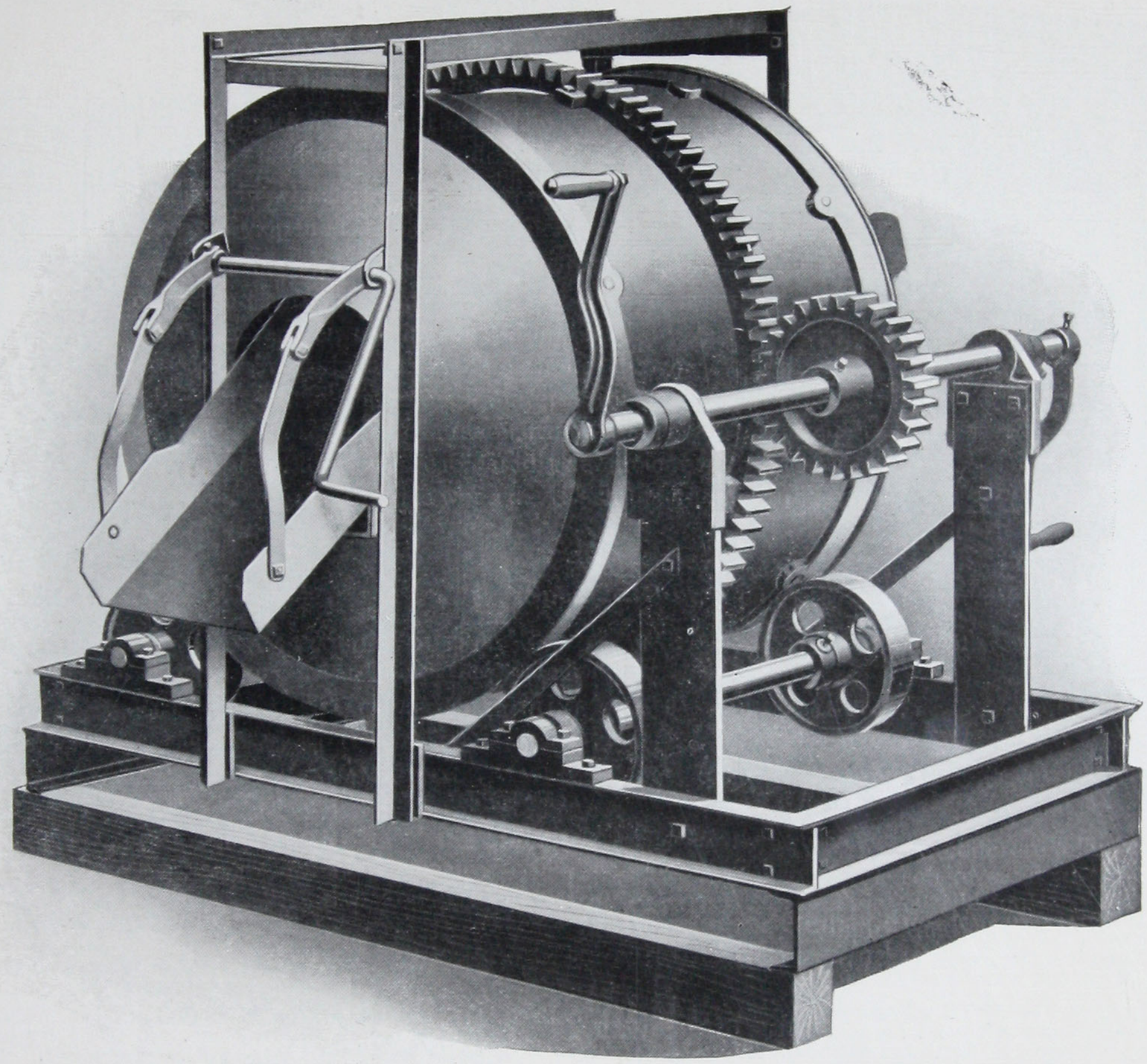
EXPERT SERVICE—We have an expert who will gladly give you any needed information on any subject not clear to you. You are at perfect liberty to write us and we will see that you get proper attention, and the information you need. We are ready at all times to help you in anything pertaining to the concrete product business.

TERMS OF ACCEPTANCE—All orders are accepted subject to delays caused by fire, strikes, or other circumstances beyond our control.

All machines sold F. O. B. Fredericktown, Ohio, unless otherwise arranged.

The "Panama Winner" Hand or Power Mixer

Capacity, 3 Cu. Ft. per Batch under Hand Operation and Up to 5 Cu. Ft. per Batch under Power Operation



This machine will save much valuable time and hard labor and mix concrete more thoroughly than is possible by hand.

The machine is practically the same as the mounted outfits on pages 6 and 7, and although an efficient mixer, it is rather large and heavy for hand operation. **For Stationary Use** in a block plant, with power, it is just the thing.

In some instances it is desirable, however, to purchase this hand-operated machine and later install an engine or motor.

For General Work the truck mounted machine is very convenient. The discharge spout is high enough to discharge concrete into a wheelbarrow, and is long enough to set beside forms in many cases when the concrete can discharge directly into them.

We strongly advise the purchase of a completely mounted outfit with power as illustrated on page 7, as it will save more time and labor than the above machine and prove much more satisfactory.

SPECIFICATIONS

THE DRUM measures 36 inches in diameter and 30 inches wide. It is made of 10-gauge steel reinforced by heavy castings. The mixing blades and buckets will do thorough, quick work, and are set so there will be no clogging when mixing semi-dry concrete for product manufacture. One set of buckets in the drum serves the double purpose of carrying the concrete on to the discharge chute and throwing it back into the center of the mixer when discharge chute is raised, thus insuring a perfect mixture. When discharge chute is lowered the mixed concrete is discharged into wheelbarrow or forms. All material is discharged in a few revolutions of the drum. Openings into drum are 14 inches in diameter. Loading side of drum is fitted with a charging hopper 20 inches wide, the top edge of which is 44 inches from the ground. This makes it easy to charge with materials. To clean the drum throw in a few shovelfuls of gravel and a bucket of water. Turn a few minutes and then discharge and it will be clean.

CAPACITY—When operated by hand, 3 cubic feet per batch; when operated by power, up to 5 cubic feet per batch.

FRAME made of 3-inch steel channel, with cross channels of same materials. Measures 4 feet 10 inches long and 3 feet 2 inches wide over all. Total width, including charging hopper, is 4 feet 2 inches.

TRUNNION ROLLERS on which mixing drum is supported have chilled face and measure 10 inches in diameter, with 2-inch face.

MOUNTING—On skids, as illustrated for stationary use. **On trucks,** for portable use. Trucks have steel wheels 16 inches in diameter with 3-inch tires. Track or distance between wheel centers is 48 inches.

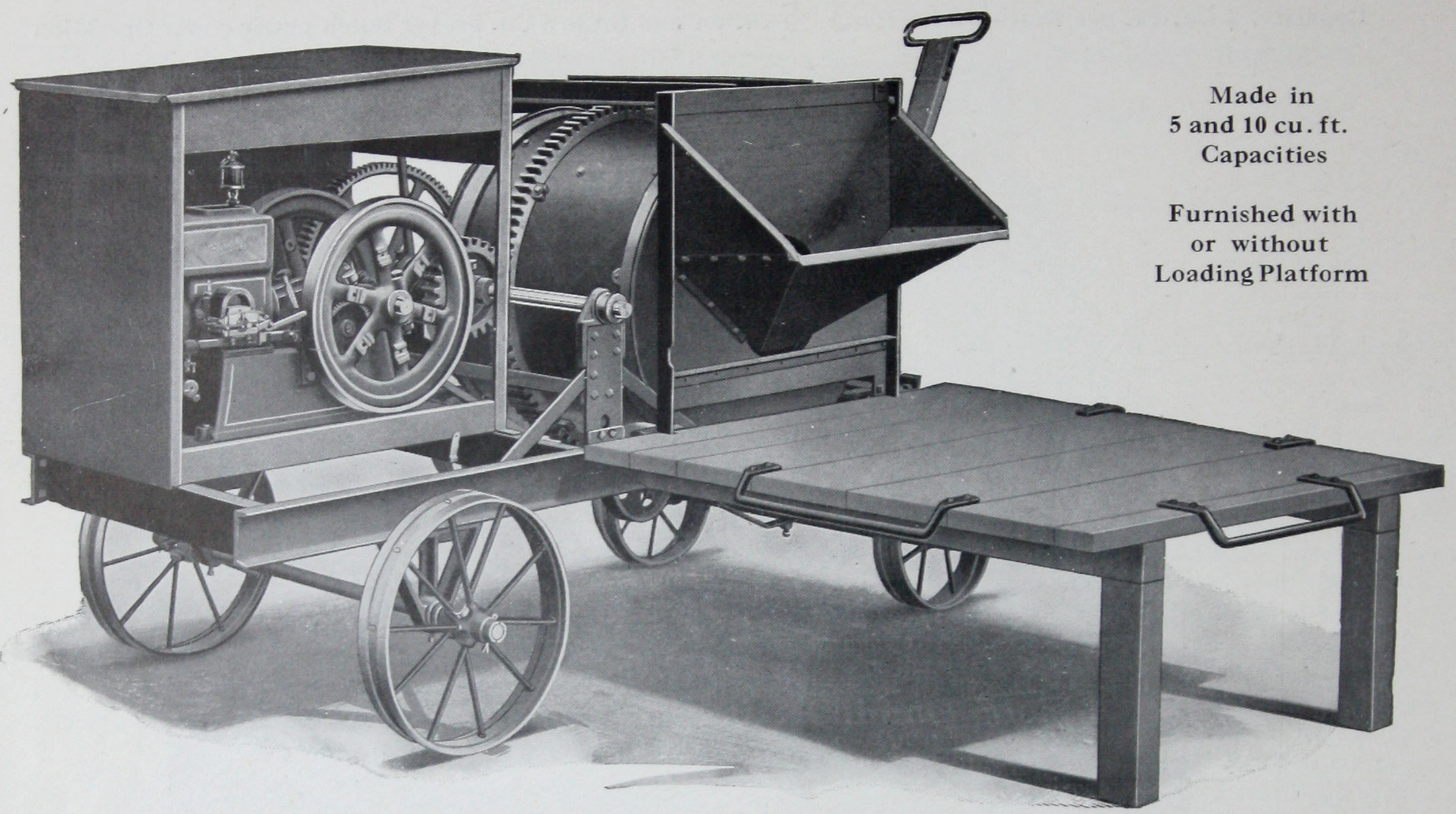
LUBRICATION—All important bearings are provided with compression grease cups. These enable you to force fresh grease into the bearing and at the same time force the old grease and dirt out of the bearing.

No. 7659—"PANAMA WINNER," Hand Operated Concrete Mixer, on skids. Shipping weight, 860 pounds.

No. 7859—"PANAMA WINNER," Hand Operated Concrete Mixer, on truck. Shipping weight, 1,250 pounds.

No. 7959—POWER PULLEY for "Panama Winner" Concrete Mixer, 20-inch diameter, 3-in. face. Shipping weight, 35 pounds.

"Panama Platform Loader" Concrete Mixer



Made in 5 and 10 cu. ft. Capacities

Furnished with or without Loading Platform

These are our standard batch mixers equipped with loading platforms and hoppers instead of side loaders. With these machines the material is wheeled up on platform and discharged directly into the hopper.

In some classes of work this type of machine is better suited than the side loader type, although it is, of course, more limited in adaptability.

It is also furnished, if desired, without side loader.

MIXING BLADES AND BUCKETS will do thorough, quick work, and are set so there will be no clogging when mixing semi-dry concrete for product manufacture. One set of buckets in the drum serves the double purpose of carrying the concrete on to the discharge chute and throwing it back into the center of the mixer when discharge chute is raised, thus insuring a perfect mixture. When discharge chute is lowered the mixed concrete is discharged into wheelbarrow or forms. All material is discharged in a few revolutions of the drum.

TO CLEAN THE DRUM throw in a few shovelfuls of gravel and a bucket of water. Turn a few minutes and then discharge and it will be clean.

The **loading platform** is made of 2-inch planks with 4 in. x 4-in. hinged legs. Platform is 24 inches high. It is held to mixer frame by iron hooks and is easily dismounted to permit moving mixer. Platform contains iron rods to support runways but runway planks are not included.

"Panama Senior" Platform Loader—Capacity 10 Cu. Ft. of Loose Material to the Batch, or 12 Cubic Yards of Mixed Concrete per Hour

THE DRUM—46 in. diameter and 38 in. wide, 10 gauge steel securely attached to heavy cast iron heads. Openings into drum are 25 in. diameter on the intake side and 16 in. on the discharge side. Loading hopper enters drum so it dumps clean without spilling material outside of machine.

FRAME—5 x 1¾ in. steel channel, with three cross channels of same materials.

TRUNNION ROLLERS supporting mixing drum, 10 in. diameter, with 2 in. chilled face.

TRUCK WHEELS—Steel with cast hub. Front wheels 18 in. diameter; rear, 24 in. diameter; 4-in. re-enforced tires. Axles are cold rolled steel. The rear one is mounted in brackets as shown and the front supported by a hardwood beam.

TRACK—Standard 4-ft. 8-in. so wheels will follow the road track.

POWER—Equipped with our famous 5 Horse-Power Gasoline Engin with built-in magneto, which eliminates the use of batteries and all engine trouble caused by batteries. Each engine furnished with 12 x 6-in. pulley for other work, lubricator, grease cups, can of oil and can of grease.

LUBRICATION—All important bearings are provided with a compression grease cup. These enable you to force fresh grease into the bearings and at the same time force the old grease and dirt out.

No. 8159-A "PANAMA" SENIOR PLATFORM LOADER—Ten Cubic Foot Concrete Mixer, complete with engine and loading platform. Shipping weight, 4,000 pounds.

No. 8159-B—Same as above, but without loading platform. Weight, 3,800 pounds.

"Panama Standard" Platform Loader—Capacity 5 Cubic Feet of Loose Material to the Batch or 6 Cubic Yards of Mixed Concrete per Hour

THE DRUM—36 in. diameter and 30 in. wide, 10 gauge steel securely attached to heavy cast iron heads. Openings into drum are 14 in. diameter on both the intake and discharge side.

FRAME—5 x 1¾ in. steel channel, with three cross channels of same material.

TRUNNION ROLLERS supporting mixing drum, 10 in. diameter, with 2-in. chilled face.

TRUCK WHEELS—Steel with cast hub. Front wheels 18 in. diameter; rear, 24 in. diameter; 4 in. re-enforced tires. Axles are cold rolled steel. The rear one is mounted in brackets as shown and the front supported by a hardwood beam.

TRACK—Standard 4 ft. 8 in., so wheels will follow the road track.

POWER—Equipped with our famous 3 Horse Power Gasoline Engine, with built-in magneto, which eliminates the use of batteries, and all engine trouble caused by batteries. Each engine furnished with 8 x 4 in. pulley for other work, lubricator, grease cup, can of oil and can of grease.

LUBRICATION—All important bearings are provided with a compression grease cup. These enable you to force fresh grease into the bearings and at the same time force the old grease and dirt out.

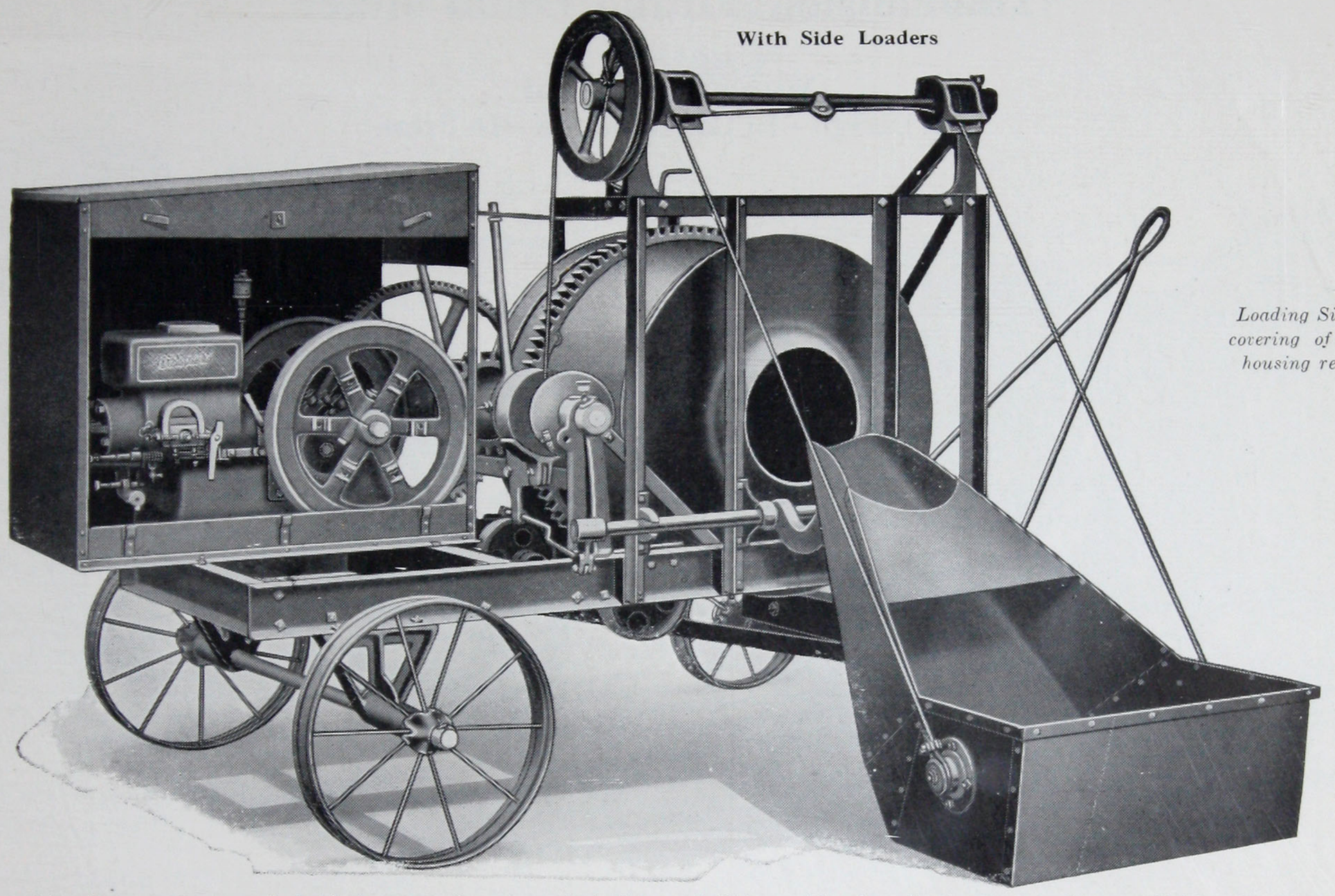
No. 8459 "PANAMA" STANDARD PLATFORM LOADER—Five Cubic Foot Concrete Mixer, complete with engine and loading platform. Shipping weight, 2,600 pounds.

No. 8259—Same as above but without loading platform. Weight, 2,350 pounds.

5 and 10 Cu. Ft. Mixers can be furnished Equipped with water Attachment.

"Panama" Batch Concrete Mixers

With Side Loaders



Loading Side with covering of engine housing removed

These machines incorporate every desirable feature and are strongly built throughout to withstand the severe treatment to which a concrete mixer is subjected. They are standard machines of highest quality and represent exceptional values at the prices quoted.

They are equipped with **Side Loaders** which increase the efficiency, as the side loader or loading bucket holds a full batch and can be filled while a batch of concrete is being mixed. When the loading bucket is raised to discharge into the mixing drum the bottom is elevated to such an angle that it will dump clear without pounding on the bottom of the drum. Lever controlling movement of loading attachment is placed at front of machine so it can be manipulated by the same man who handles the discharge chute lever.

The side loader is raised to discharge into mixer drum by means of steel cable and hoist operated by a simple internal expansion ring clutch. Clutch is disengaged automatically when bucket is at top. At same time bucket is held in position by a leather faced brake controlled by clutch lever so loader can be let down without noise or jar.

MIXING BLADES AND BUCKETS will do thorough, quick work, and are set so there will be no clogging when mixing semi-dry concrete for product manufacture. One set of buckets in the drum serves the double purpose of carrying the concrete on to the discharge chute and throwing it back into the center of the mixer when discharge chute is raised, thus insuring a perfect mixture. When discharge chute is lowered the mixed concrete is discharged into wheelbarrow or forms. All material is discharged in a few revolutions of the drum.

TO CLEAN THE DRUM throw in a few shovelfuls of gravel and a bucket of water. Turn a few minutes and then discharge and it will be clean.

"Panama Standard"—Capacity 5 cubic feet of Loose Material to the Batch or 6 cu. yds. of Mixed Concrete per Hour

THE DRUM—36 in. diameter and 30 in. wide, 10 gauge steel securely attached to heavy cast iron heads. Openings into drum are 14 in. diameter on both the intake and discharge side.

SIDE LOADER—Well constructed of sheet steel properly braced. Holds one batch.

FRAME—5 x 1¾ in. steel channel, with three cross channels of same material.

TRUNNION ROLLERS supporting mixing drum, 10 in. diameter, with 2 in. chilled face.

TRUCK WHEELS—Steel with cast hub. Front wheels 18 in. diameter; rear, 24 in. diameter; 4 in. re-enforced tires. Axles are cold rolled steel. The rear one is mounted in brackets as shown and the front supported by a hardwood beam.

TRACK—Standard 4 ft. 8 in., so wheels will follow the road track.

POWER—Equipped with our famous 3 Horse-Power Gasoline Engine, with built-in magneto, which eliminates the use of batteries, and all engine trouble caused by batteries. Each engine furnished with 8x4 in. pulley for other work, lubricator, grease cup, can of oil and can of grease.

LUBRICATION—All important bearings are provided with compression grease cups. These enable you to force fresh grease into the bearings and at the same time force the old grease and dirt out.

No. 8059, "PANAMA STANDARD"—Five Cubic Foot Concrete Mixer, complete with engine and side loader. Shipping weight, 2,700 pounds.

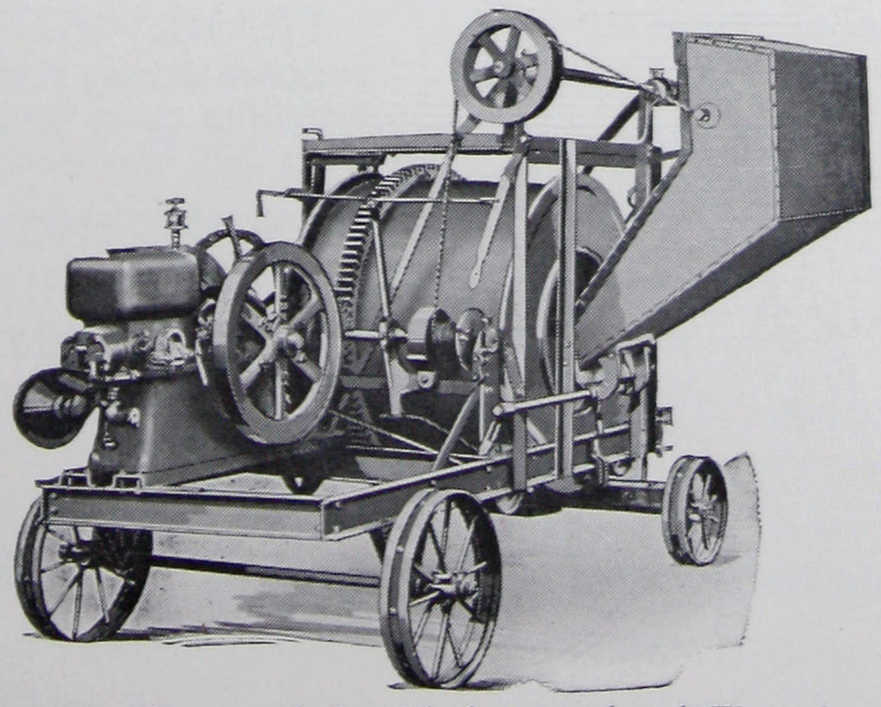
"Panama Senior"—Capacity 10 cubic feet of Loose Material to the Batch or 12 cu. yds. of Mixed Concrete per Hour

THE DRUM—46 in. diameter and 38 in. wide, 10 gauge steel securely attached to heavy cast iron heads. Openings into drum are 25 in. diameter on the intake side, and 16 in. on the discharge side. Loading hopper enters drum so it dumps clean without spilling material outside of machine.

SIDE LOADER—Well constructed of sheet steel properly braced. Holds one batch.

FRAME—5 x 1¾ in. steel channel, with three cross channels of same material.

TRUNNION ROLLERS supporting mixing drum, 10 in. diameter, with 2 in. chilled face.



TRUCK WHEELS—Steel with cast hub. Front wheels 18 in. diameter; rear, 24 in. diameter; 4-in. re-enforced tires. Axles are cold rolled steel. The rear one is mounted in brackets as shown and the front supported by a hardwood beam.

TRACK—Standard 4-ft. 8-in., so wheels will follow the road track.

POWER—Equipped with our famous 5 Horse Power Gasoline Engine, with built-in magneto, which eliminates the use of batteries and all engine trouble caused by batteries. Each engine furnished with 12 x 6 in. pulley for other work, lubricator, grease cups, can of oil and can of grease.

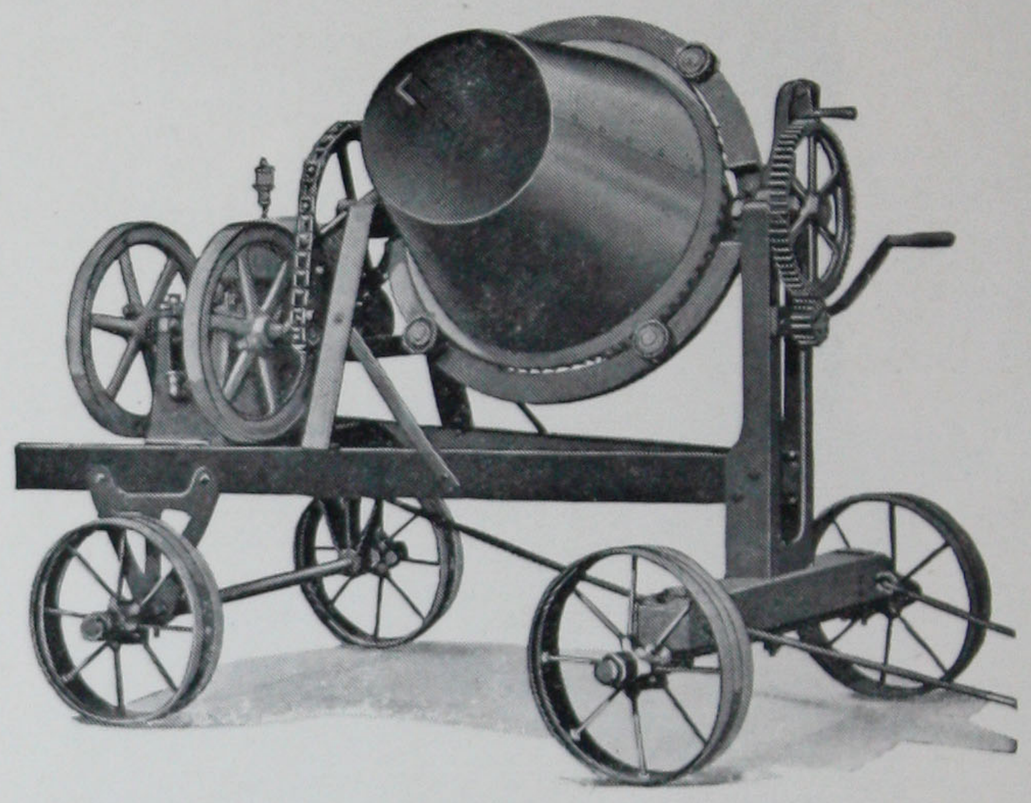
LUBRICATION—All important bearings are provided with compression grease cups. These enable you to force fresh grease into the bearings and at the same time force the old grease and dirt out.

No. 8159, "PANAMA SENIOR"—Ten Cubic Foot Concrete Mixer, complete with engine and side loader. Shipping weight, 4,000 pounds.

5 and 10 Cu. Ft. Mixers can be furnished equipped with Water Attachment.

The Panama Tilting Drum Mixer

Without An Equal
In Design—In Construction—In Price



With Engine Housing Removed

This machine embodies the greatest usefulness ever known for the size and price.

It is light and easily moved; exceptionally simple which affords freedom from trouble; durably constructed to assure long life and powered with an engine that cannot be excelled.

It loads quickly and easily, will thoroughly mix concrete, plaster or mortar, more economically than by any other method and will satisfactorily handle a large percentage of jobs on which large and heavy mixers are now used. The drum, of convenient height, loads on the right and dumps to the left, or vice versa.

This is, in fact, a mixer from which you can depend upon receiving the utmost in results and general satisfaction, in line with the 20 year old Foote policy of giving the greatest possible value.

The engine is a full 2 H. P. of standard make with magneto ignition.

SPECIFICATIONS

No. 9759, 4 Cu. Ft. Mixer on Truck, Shipping Weight, 1,065 Pounds.

CAPACITY—4 cubic feet loose material per batch, or 40 to 50 cubic yards per day.

POWER—2 H. P. 4 cycle gasoline engine with magneto ignition.

MIXING DRUM—26″ diameter, 33″ deep, with 17¾″ opening.

TRANSMISSION—Drive shaft, 1¼″ cold rolled, steel; sprockets and gears, semi-steel; drive chain, No. 62 malleable iron. Quickly and easily repaired.

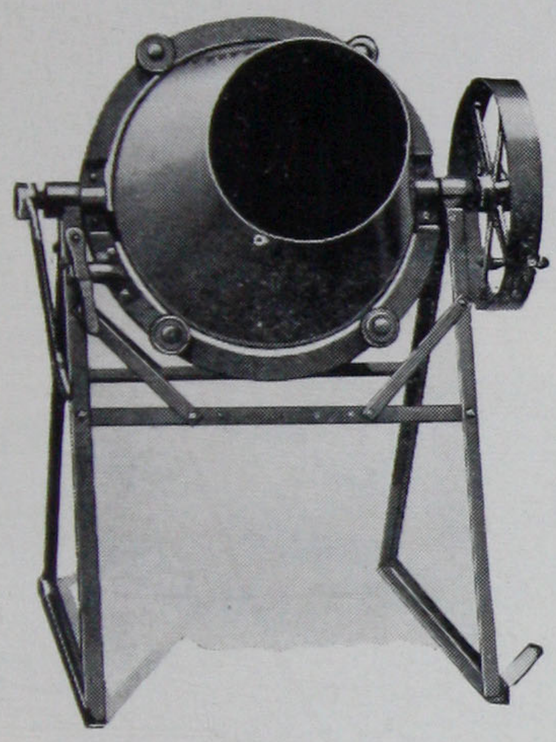
FRAME—Heavy 4″ channel. Cast standards support drums and mixing mechanism. Extra heavy brackets carry weight on rear axle. All bolts fitted with lock washers.

ENGINE HOUSING—made of steel, removable by loosening four bolts. One large door in rear.

TRUCK WHEELS—16″ front and rear. 3″ flat tires. Staggard spokes. Axle, 1½″ cold rolled steel. Tread, 44″ front and rear. Tongue, 55″ long.

GENERAL DIMENSIONS—Length, 6′ 7″; width, 4′ 2″; height, 5′ 2″.

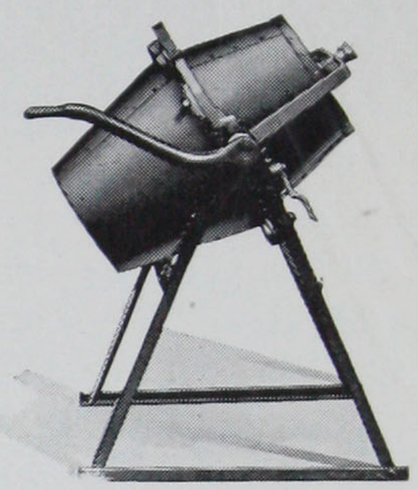
The "Panama" Tilting Drum Mixer On Stand



And Here is the same type of mixer for the farmer or small contractor, available in 3 and 4 cu. ft. capacities.

It has sufficient capacity to handle a wide range of work and can be operated by a small gas engine or by hand, if desired.

It embodies the same design and materials as the large mixers, and is made, in every way, up to the Foote Standard.



3 Cu. Ft. Mixer in Dumping Position

No. 9559, 3 Cu. Ft. Mixer on Stand

CAPACITY—3 cubic feet loose material per batch, or 25 to 35 cubic yards per day.

POWER—Can be operated with 1 H. P. engine. Equipped with 20″ x 3″ tight pulley.

FRAME—Made of 1½″ angle steel.

GENERAL DIMENSIONS—Length, 3′ 2″; width 3′; height 4′ 6″; handle, 23″; shoveling height, 35″.

SHIPPING WEIGHT—About 300 lbs.

No. 9659, 4 Cu. Ft. Mixer on Stand

CAPACITY—4 cubic feet loose material per batch, or 30 to 40 cubic yards per day.

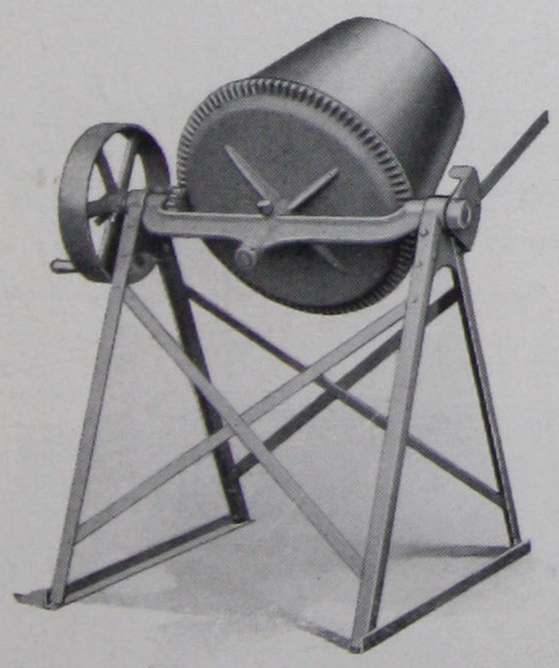
POWER—Equipped with 20″ x 3″ tight pulley. Can be operated with 1½ H. P. engine.

FRAME—Made of 2″ angle iron.

GENERAL DIMENSIONS—Length, 3′ 9″; width 3′ 4″; height, 4′ 9″; handle, 23″; shoveling height, 37″.

SHIPPING WEIGHT—About 390 lbs.

The "Panama" Junior Tilting Drum Mixer On Stand



This is a small model of the Panama Tilting Drum Mixer especially suited for use around a farm or for contractors or factory use on small concreting jobs. It is well built and highly practical in every sense of the word.

No. 9859

CAPACITY—1½ Cu. Ft. loose material per batch.

POWER—Equipped with 16″ pulley, 3″ face. Can be operated with 1 H. P. engine. Also handle furnished for hand power.

FRAME—Made of 1½ x 1½ steel angles.

GENERAL DIMENSIONS—
Length 3 feet, Width 2 feet, 10″.
Height 4 feet, 6″, Shoveling height 35″.

SHIPPING WEIGHT—245 pounds.

DRUM—Heavy steel, 22″ deep, 18″ at top. Bottom cast 23″ inside measurement.

Superior Designs Furnished With "Panama" Block Machines

All "Panama" Blocks are Exact Fac-similes of Genuine Stone.

Here is the Reason

ON THESE pages are reproductions from actual photos of blocks made on "Panama" Machines. The blocks are most faithful fac-similes of hewn stone and it is difficult to distinguish a wall built from these blocks from that of genuine and expensive stone.

All face plates are interchangeable and any block illustrated in this catalog can be made on the machine for which it is adapted. To make corner blocks a face plate and an end plate are used. Most end plates are reversible and suited for making right or left hand corners, but in some instances, as explained on the following pages, a right hand and a left hand plate are required. Please note that blocks are delivered with back to operator, therefore a **right hand endgate** makes a return which is at **the left** of block as built into the wall.

In ordering, be sure to furnish Letter or Number of part wanted, and name of machine on which it is to be used.

All master patterns from which "Panama" molds are made were produced by a rather unusual method. The process was slow and expensive, but the exceptional beauty and quality of the blocks produced justified the effort; in fact nothing short of the best would have been suitable for use with "Panama" Equipment.

Instead of having the pattern maker hew out the patterns following his idea as to the appearance of hewn stone, the best stone mason obtainable was employed. He then carved out of actual stone the masters from which each and every "Panama" Mold was made. The next step—that of pouring the molten metal directly against these stone blocks—produced a set of patterns which are unequalled in beauty, fineness of texture and exact likeness to the actual stone.

To purchase "Panama" Concrete Machinery means to produce blocks of **higher quality** which sell **more easily,** at better profits, and to see beautiful structures erected which stand for years as a monument to your efforts and an asset which directs profitable business to you.

Face plates for making Divisional Blocks are furnished as follows:

Division Styles

DIVISION STYLE A—Divided to make one half and two quarter blocks.

DIVISION STYLE B—Divided to make two half blocks.

DIVISION STYLE C—Divided to make one quarter block and one three-quarter block.

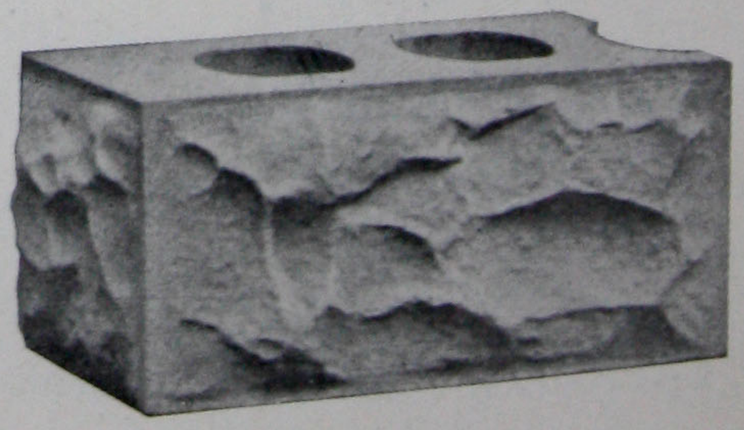
DIVISION STYLE D—16-inch plate divided to make one 2-inch, one 6-inch and one 8-inch block; 24-inch plate in Division D is divided to make one 8-inch block and one 16-inch block

DIVISION STYLE E—Divided to make full size block with half of face smooth for inside corners.

DIVISION STYLE F—Full size plate with special division line for outside angle bay window blocks.

Design No. 1. Shallow Rock Face

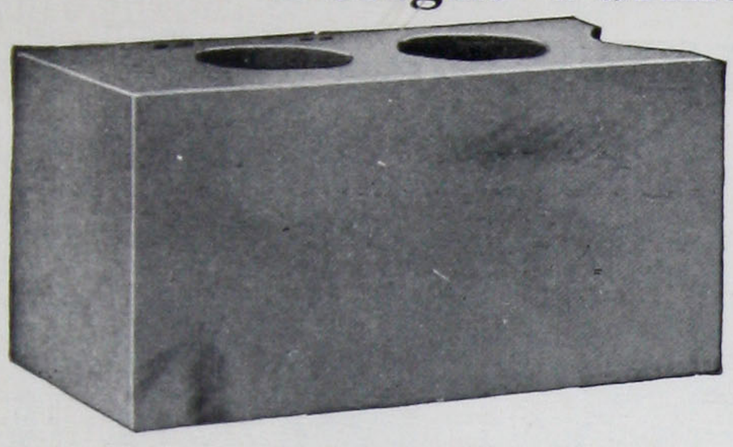
Design No. 2. Medium Rock Face



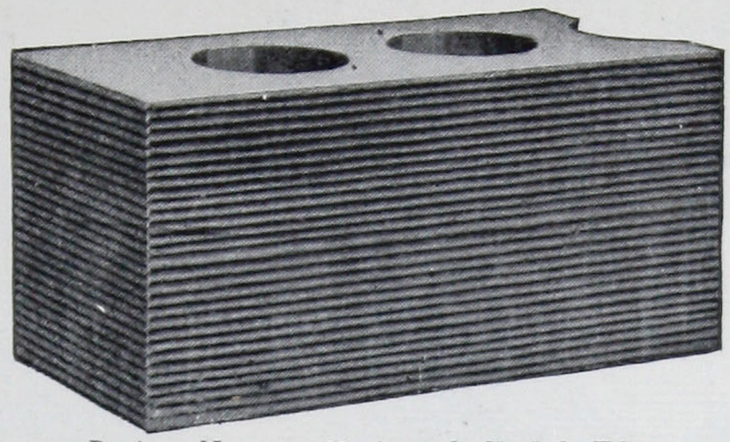
Design No. 3. Heavy Rock Face

These three designs are reversible, so only one endgate is required for either right or left return corner. Design 1 Endgate can be used with Design 2 and Design 2 Endgate with Design 3.

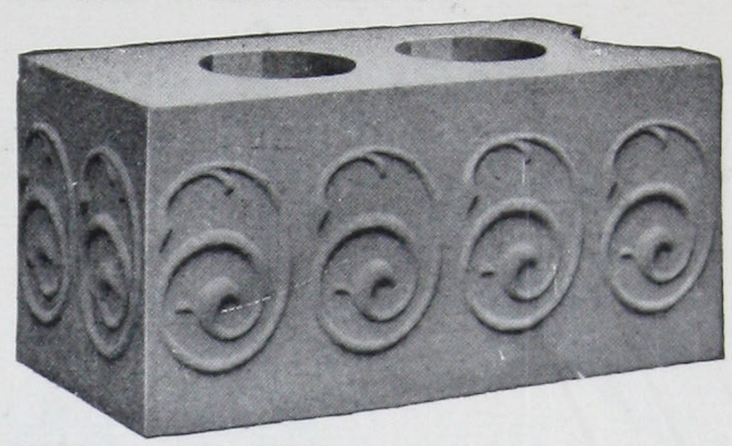
Designs Furnished With "Panama" Block Machines



Design No. 4. Standard Plain Face
Can be furnished in all Divisions. But one endgate needed.



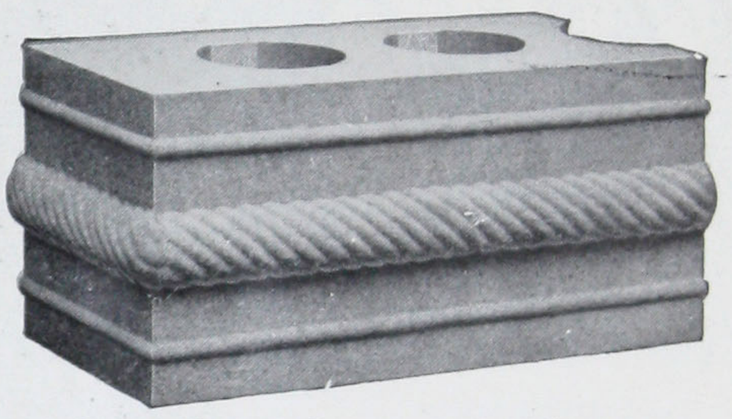
Design No. 9. Horizontal Tooled Edge
But one endgate needed.



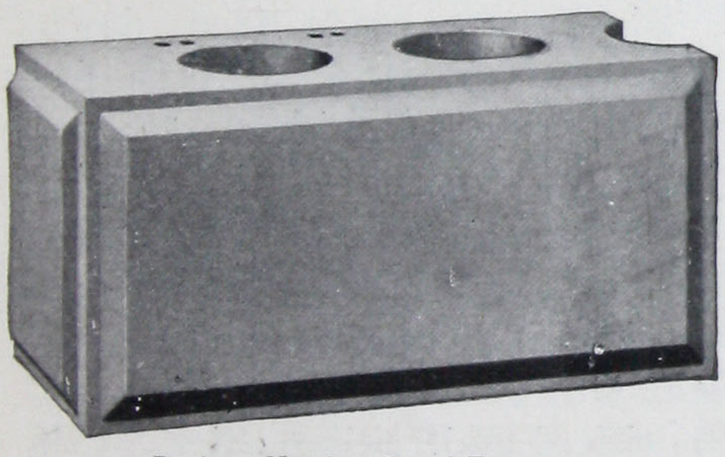
Design No. 14. Ornamental Scroll Face
Fractional plates not made in Divisions D and F. Both right and left endgates needed.

Design No. 5 Cobblestone Face
A fine above-ground foundation block. 16-inch plate not made in Division D. Division F not made in any size. But one endgate needed.

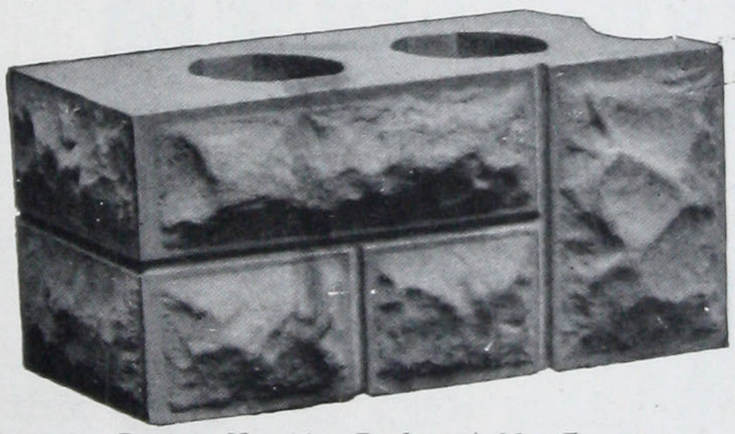
Design No. 10. Broken Ashler Face
Block made with groove between block sections for beading or tuck pointing when wall is completed. For fractional blocks order desired division in Design No. 2 which matches this design perfectly. For right hand corner block use Design No. 2 endgate. For left hand corner order endgate to match.



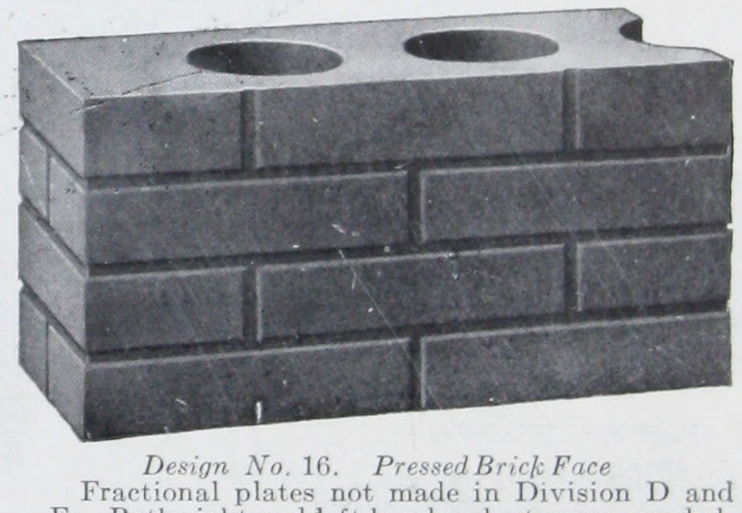
Design No. 15. Ornamental Rope Face
Fractional plates not made in Divisions D and F. Both right and left endgates needed.



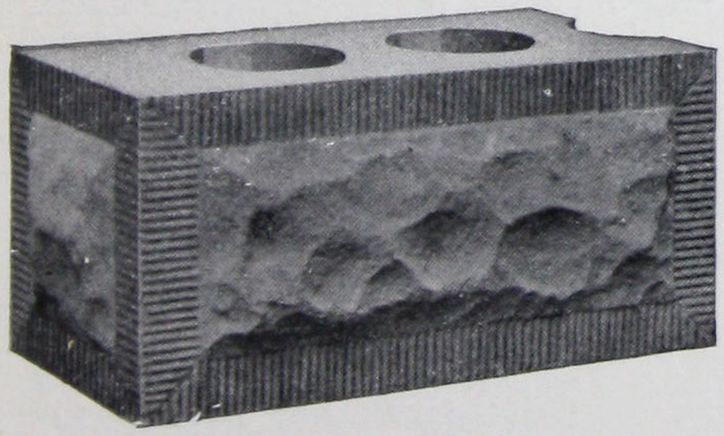
Design No. 6. Panel Face
16-inch plate not made in Division D. But one endgate needed.



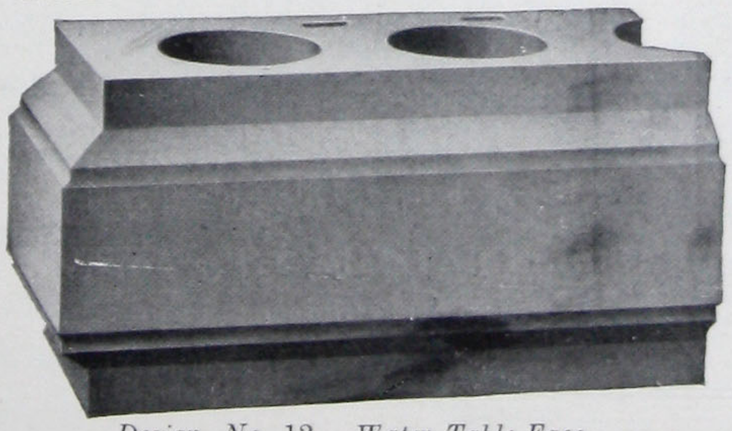
Design No. 11. Broken Ashler Face
Block made with groove between block sections for beading or tuck pointing when wall is completed. For fractional blocks order desired division in Design No. 2 which matches this design perfectly For left hand corner block use Design No. 2 endgate. For right hand corner order endgate to match.



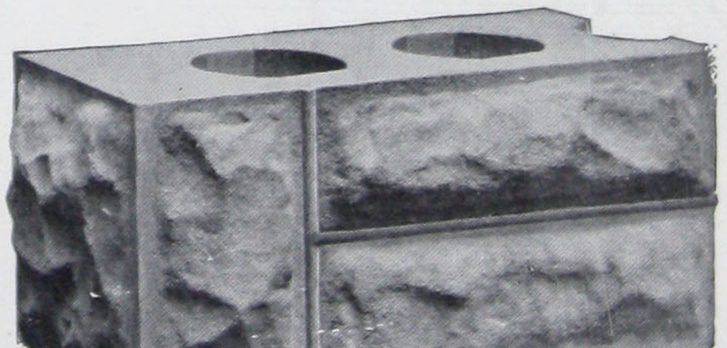
Design No. 16. Pressed Brick Face
Fractional plates not made in Division D and F. Both right and left hand endgates are needed.



Design No. 7. Rock Face with 1½-inch Tooled Edge
16-inch plate not made in Division C and D. Division F not made in any size. But one endgate needed.



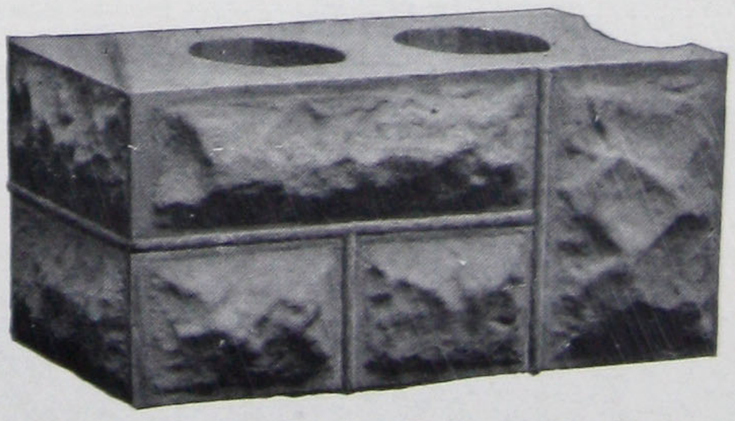
Design No. 12. Water Table Face
No fractional face needed for fractional blocks in this design. Endgate furnished is not fastened in but sets in place and is supported by any plain endgate in machine. The water table endgate is also used as a dividing plate for making fractional blocks of any length. But one endgate needed.



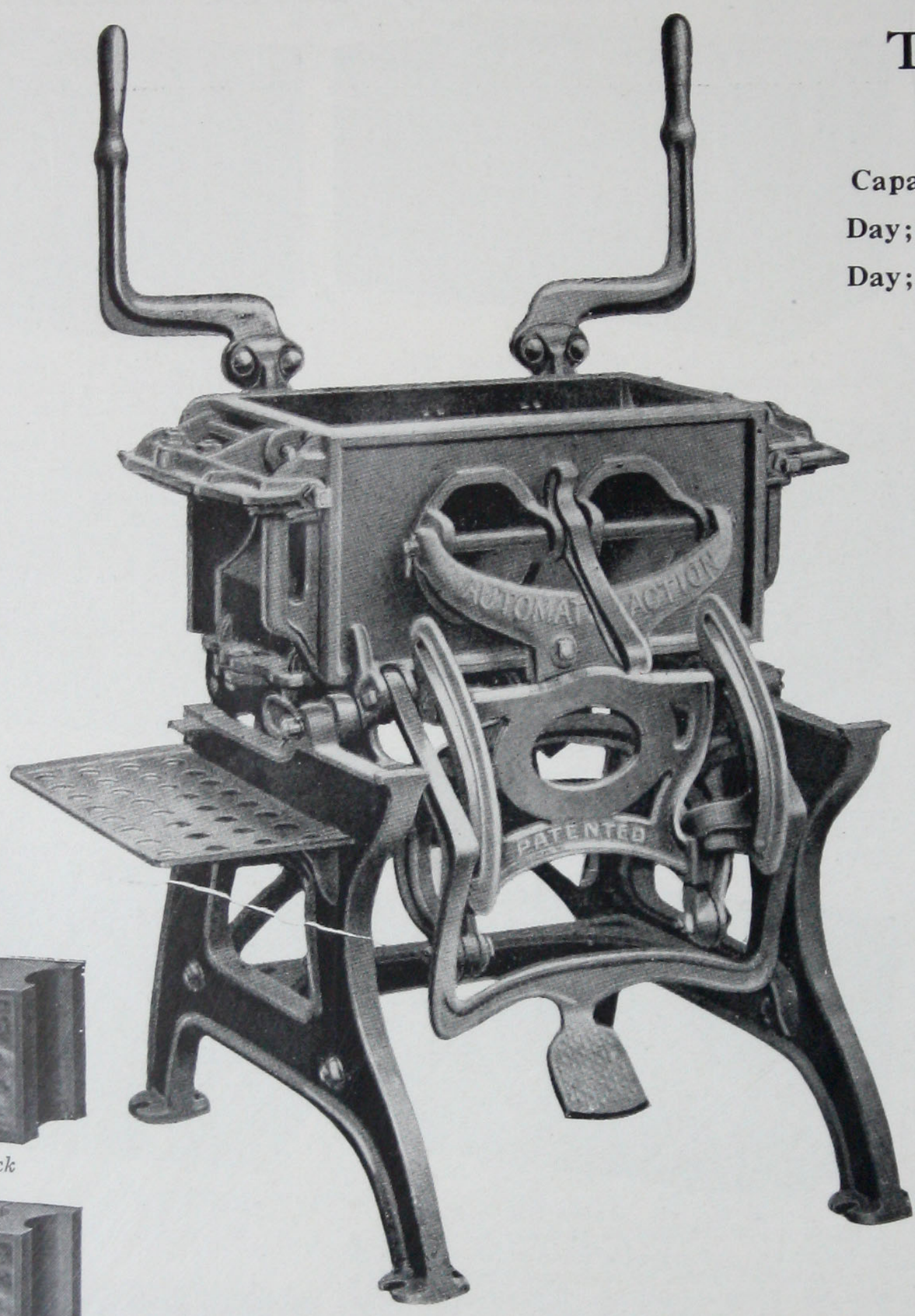
Design No. 17. Broken Ashler Face
Block made with bead between sections. Does not require tuck pointing when laid up in wall. For fractional blocks order desired division in Design No. 2 which matches this design perfectly. For right hand corner block use Design No. 2 endgate. For left hand corner order endgate to match.

Design No. 8. Bushhammer Face with 1½-inch Tooled Edge
16-inch plate not made in Divisions C and D. Division F not made in any size. But one endgate needed.

Design No. 13. Ornamental Wreath Face
Fractional plates not made in Divisions D and F. Both right and left endgates needed.



Design No. 18. Broken Ashler Face
Block made with bead between sections. Does not require tuck pointing when laid up in wall. For fractional blocks order desired division in Design No. 2, which matches this design perfectly. For left hand corner block use Design No. 2 endgate. For right hand corner order endgate to match.



The "Panama Leader" Block Machine

Capacity With One Man, 100 Blocks per Day; With Two Men, 200 to 250 Blocks per Day; Can be Increased With Experience

An exceptionally speedy machine, customers reporting results equal to and sometimes in excess of the above capacities. Notwithstanding this large production, blocks are of the highest quality.

Operation is simple and easy as illustrated on the opposite page.

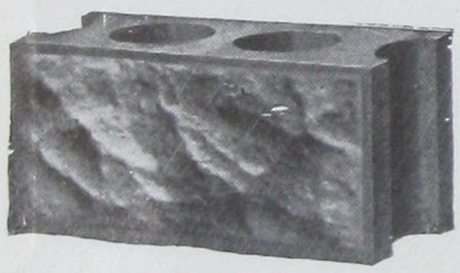
Blocks are made face down, which permits the use of a fine rich mixture for the face, resulting in a waterproof block showing every impression of the face plate design. The cores occupy one-third of the block, which is the standard of all concrete block authorities, and, being elliptical in shape, the block is much stronger than if made with square cores.

The cores are automatically withdrawn as the mold box is turned over, so a wetter mixture can be used than in machines where the core is withdrawn horizontally. This insures a strong block and shortens the curing process.

The "Leader" machine uses iron pallets which are easy to handle, do not split, warp or swell, and, with reasonable use, will last forever.

All parts of this machine subject to wear are adjustable so that the mold box can be kept true and square regardless of how long the machine is used.

Repair parts are always kept in stock and can be quickly furnished at small cost.



Rock Face Whole Block

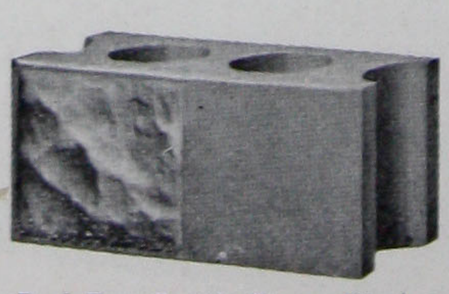
One-half block and two quarter blocks. Rock design, made at one filling of the mold.

Rock Face Solid Block

Rock Face Block. with opening for joists.

Rock Face and End Corner Block

Rock Face Gable Block

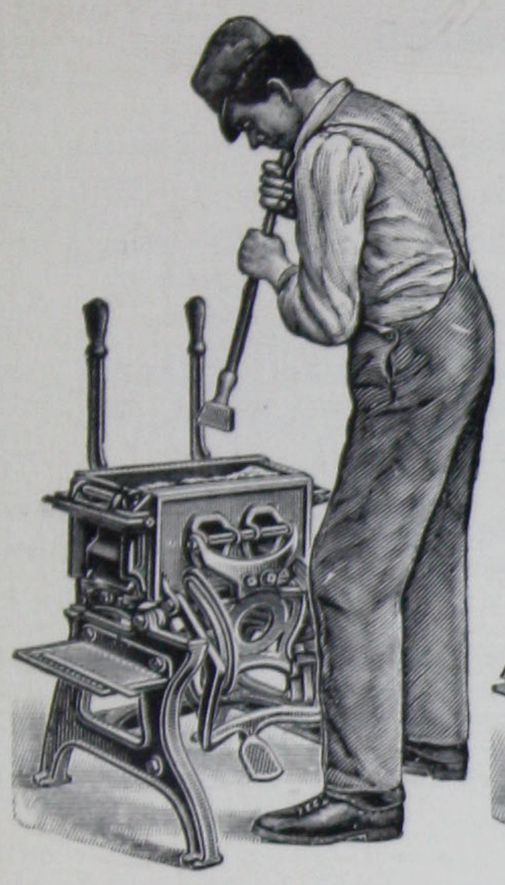


Rock Face Inside Corner Block

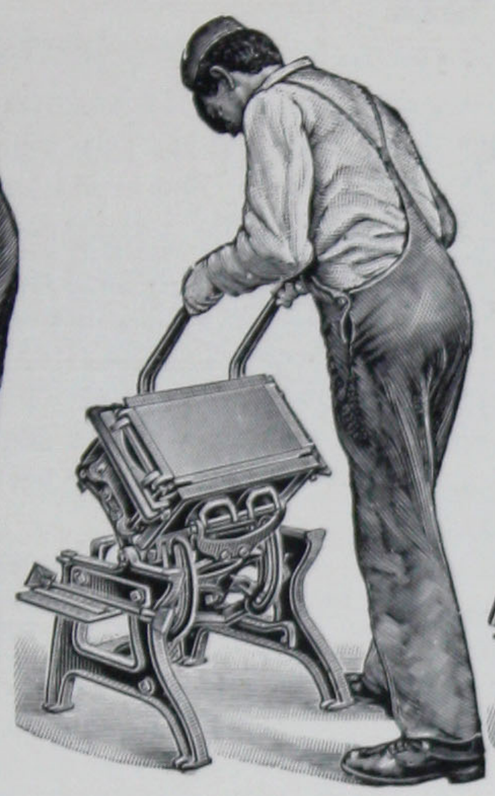
Plain Face Gable Block

Plain Face and End Outside Corner Block

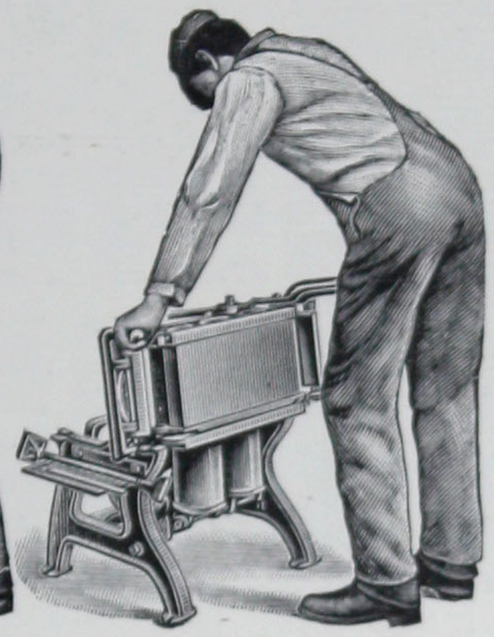
Note How Easily Blocks are Made on the "Panama Leader" Block Machine



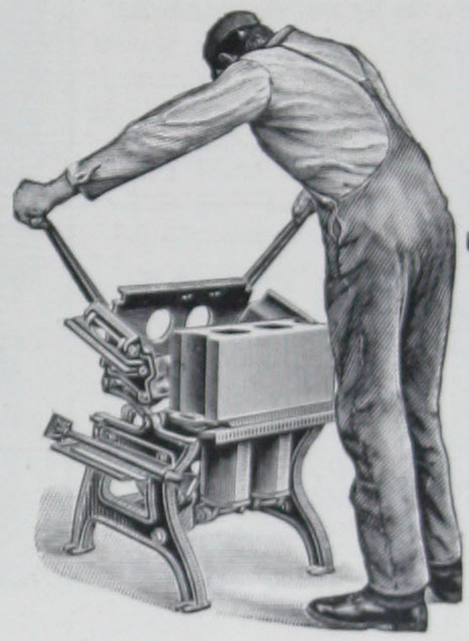
Tamping the Material Face Down



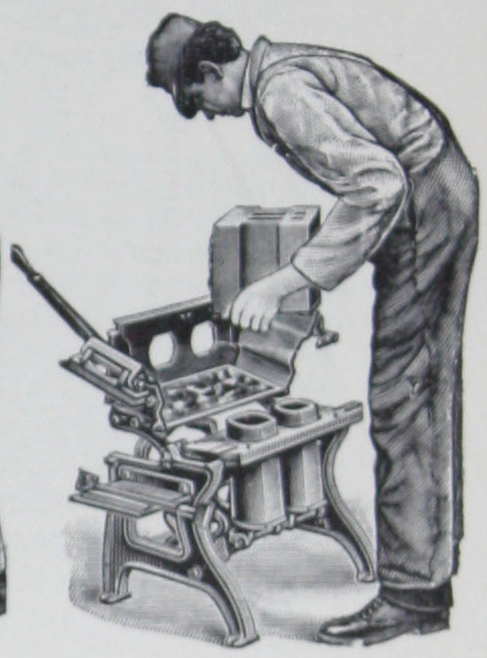
Turning Flask



Spreading Endgates



Releasing Block

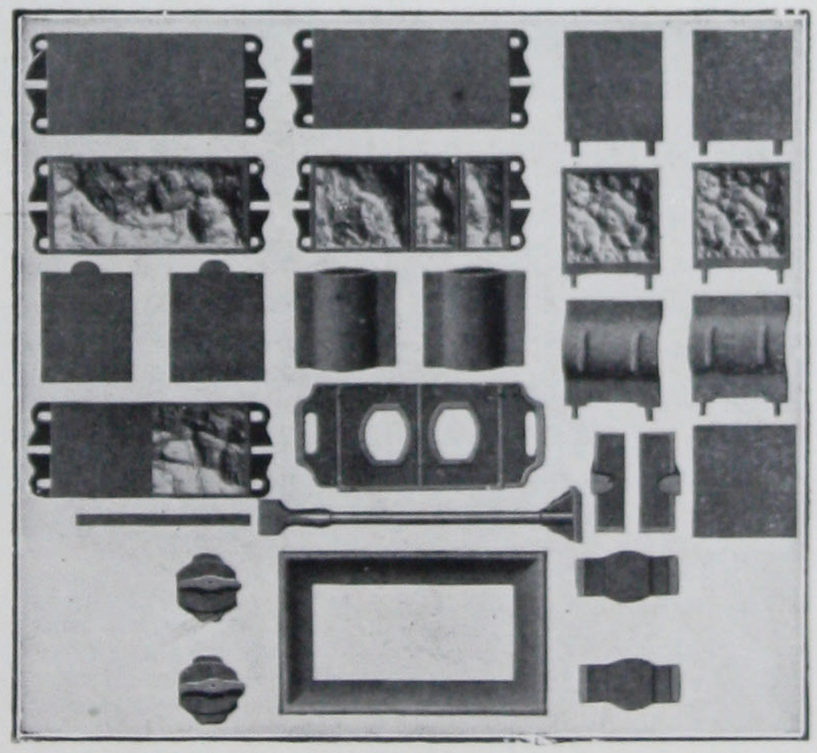


Lifting Out Block

"Panama Leader" Block Outfits

These Parts Furnished With Each Machine

Two Face Plates for making whole blocks, your choice of designs.
Two Face Plates for making half and quarter blocks, your choice of designs.
Two Core Endgates for making core ends on the blocks.
Four Return Endgates to match the face plates for making corner and pier blocks.
Two Plain Dividing Plates for making plain ends on half and quarter blocks.
Two Core Dividing Plates for making core ends on half and quarter blocks.
One Face Plate for making inside corner blocks.
Two Joist Block Attachments for making space for joists in the wall so joists can be put in position without cutting blocks.
One Dividing Plate for making gable blocks.
Two Wall Plugs for making solid blocks.
Two Pallet Plugs for making solid blocks.
One Strike-Off Tool for removing excess material when block is finished.
One Double End Tamper.
One Hopper.
One Cast Iron Pallet.



Specifications of "Panama" Leader Block Outfits

No. 1555—8x8x16 inch "PANAMA" LEADER BLOCK MAKING OUTFIT. Shipping weight, 420 pounds

No. 1655—8x9x16 inch "PANAMA" LEADER BLOCK MAKING OUTFIT. Shipping weight, 470 pounds.

No. 1755—8x10x16 inch "PANAMA" LEADER BLOCK MAKING OUTFIT. Shipping weight, 525 pounds.

No. 1855—8x12x16 inch "PANAMA" LEADER BLOCK MAKING OUTFIT. Shipping weight, 645 pounds.

Blocks actually are 7¾ inches high and 15¾ inches long, allowance being made for ¼ inch mortar joint.

To obtain the full capacity of the "Panama" Leader Machine you must have as many pallets as the number of blocks you intend to make in one day.

Extra Pallets for "Panama" Leader Block Machines

(See illustration in group above)

No. 3755—PALLETS for 8x8x16 inch blocks. Shipping weight, each, 7 pounds.

No. 4755—PALLETS for 8x9x16 inch blocks. Shipping weight, each, 9 pounds.

No. 5755—PALLETS for 8x10x16 inch blocks. Shipping weight, each, 11 pounds.

No. 6755—PALLETS for 8x12x16 inch blocks. Shipping weight, each, 16 pounds.

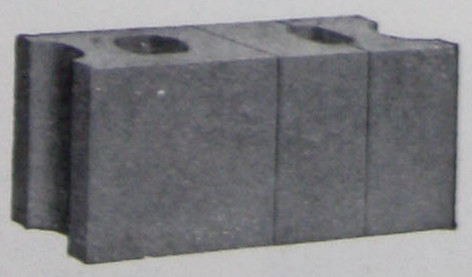
The block must rest on the pallet till hard enough to move, which usually requires 24 hours.

This illustrates the **IRON PALLETS** used with "Panama" Leader Block Machines.

They are easy to handle, do not spilt, warp or swell, and with reasonable use, will last forever.

Being more compact than wood pallets, it is also possible to store a great many in small space.

Plain Face Whole Block



One half block and two Quarter plain face blocks made at one filling of the mold.

Plain Face Solid Block

Plain Face Block with opening for joists.

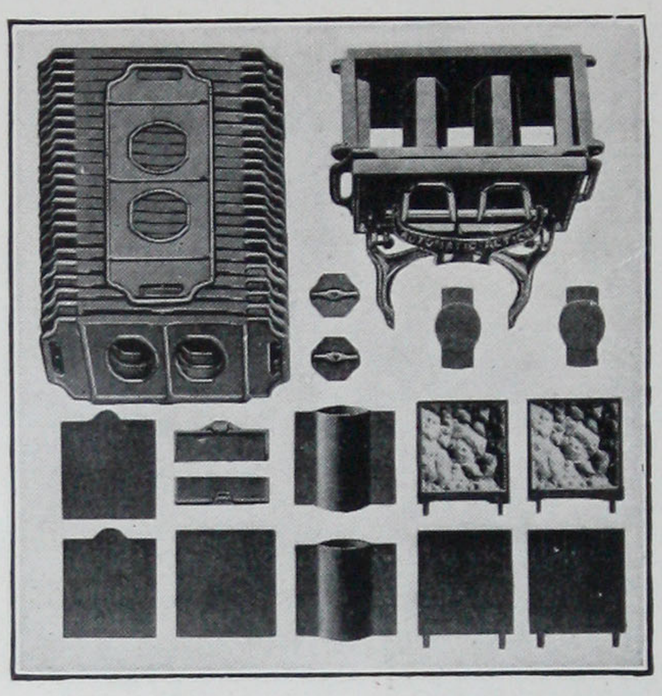
Attachments for "Panama Leader" Block Machines

PARTS TO CHANGE BLOCK SIZE

Block of various sizes can be made on complete "Panama" Leader Block Machines by purchasing flask attachments of proper size.

These attachments consist of complete mold box, less the face plate, two pairs of endgates in rock and plain designs, a pair of core endgates, two plain dividing plates, two core dividing plates, two joist block attachments, on gable dividing plate and a set of wall and pallet plugs.

The 8x9x16-inch. 8x10x16-inch and 8x12x16-inch attachments include a special endgate and plate for making blocks with 8x8-inch return end for turning corners. This breaks joints exactly in the center.



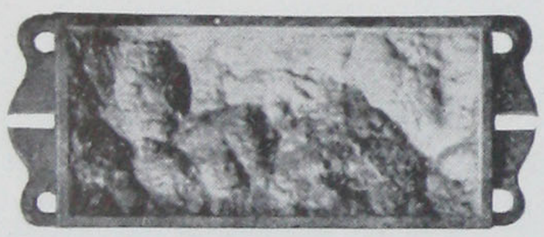
No. 1155—8x8x16-inch "PANAMA" LEADER FLASK ATTACHMENT. Shipping weight, 430 pounds.

No. 1255—8x9x16-inch FLASK ATTACHMENT. Shipping weight, 485 pounds.

No. 1355—8x10x16-inch FLASK ATTACHMENT Shipping weight, 560 pounds.

No. 1455—8x12x16-inch FLASK ATTACHMENT. Shipping weight, 700 pounds.

FACE PLATES



Whole Block Face Plate

Fractional Block Face Plate

See pages 12 and 13 for different block de signs that can be made on "Panama" Leader Machines.

An assortment of these faces are a valuable asset of any plant.

WHOLE BLOCK PLATES for making regular 16-inch blocks.

No. 2155—WHOLE BLOCK FACE PLATE for "Panama" Leader Machine. Shipping Weight, 17 pounds.

Fractional Face Plates are furnished for making quarter blocks, half blocks and three-quarter blocks, as follows:

DIVISION A—Makes two 4-inch blocks and one 8-inch block.

DIVISION B—Makes two 8-inch blocks.

DIVISION C—Makes one 4-inch block and one 12-inch block.

DIVISION E—Makes a full length block having one-half of face smooth for use on corners.

Be sure to state letter of Division wanted, otherwise Division A will be shipped.

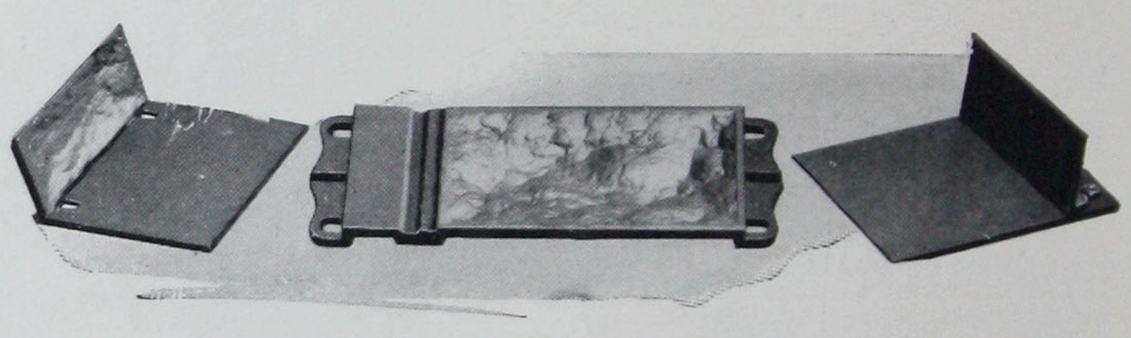
No. 2255—FRACTIONAL BLOCK FACE PLATE for "Panama" Leader Machine. Shipping weight, 17 pounds.

CIRCLE BLOCK PLATES make blocks with a curved face conforming to circles of 8 feet and 12 feet in diameter. Suitable for circular towers, bay windows and other circular walls not subject to a bursting strain.

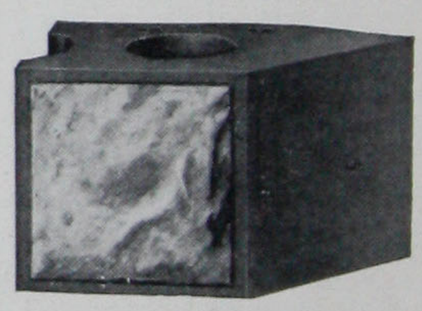
Plate for 8-foot circle furnished unless otherwise ordered.

No. 2355—CIRCLE BLOCK FACE PLATE. Shipping weight, 17 pounds.

BAY WINDOW ATTACHMENTS



Outside Angle Block



Inside Angle Block

Consists of special face plate and angle plate for making outside corner block, also an angle plate for inside corners. The angle plate is adjustable to any angle commonly used for bay windows. **State design and size wanted.**

No. 3355—BAY WINDOW ATTACHMENT for 8x8x16-inch "Panama" Leader Machine. Shipping Weight, 35 pounds.

No. 4355—BAY WINDOW ATTACHMENT for 8x9x16-inch blocks. Shipping weight, 40 pounds.

No. 5355—BAY WINDOW ATTACHMENT for 8x10x16-inch blocks. Shipping weight, 45 pounds.

No. 6355—BAY WINDOW ATTACHMENT for 8x12x16-inch blocks. Shipping weight, 50 pounds.

ENDGATES

Used for making blocks for corner use. Some blocks are reversible and therefore require but one endgate; others require a right hand and a left hand endgate. To understand this clearly, refer to pages 10 and 11. State size, design and whether right or left.

No. 3155—8x8-inch ENDGATE for "Panama" Leader Machine. Shipping weight, 9 pounds.

Rock Endgate

Core Endgate

No. 4155—8x9-inch ENDGATE. Shipping weight, 10 pounds.

No. 5155—8x10-inch ENDGATE. Shipping weight, 11 pounds.

No. 6155—8x12-inch ENDGATE. Shipping weight, 16 pounds.

Attachments for "Panama Leader" Block Machines

Four Inch Course Block Attachment

Furnished only in Plain, Rock, Panel and Tooled Faces

Makes blocks 4 inches high instead of 8 inches, as regular. Each filling of mold makes two blocks. These blocks are used for lattice and porch work, and for belt courses around building to break the monotony of one kind of block.

The attachment consists of a face plate for making two whole blocks, one face plate for making two half and four quarter blocks, one pair core endgates, one return endgate to match the face plate, two dividing pallets and a set of four dividing plates for making half and quarter blocks. It is necessary to have one dividing pallet for every two course blocks you intend to make in a day. One of the course blocks rests on the regular pallet in the machine and the other on the dividing pallets. Be sure to order enough additional pallets for a day's output. This attachment is complete for making the regular blocks and return corner blocks in whole, half and quarter sizes.

In ordering, state design and number.

No. 3555—COURSE BLOCK ATTACHMENT for 8x8x16-inch "Panama" Leader Machine. Shipping weight, 70 pounds.

No. 3655—8x16-Inch COURSE BLOCK PALLET. Shipping weight, 7 pounds.

No. 4555—COURSE BLOCK ATTACHMENT for 8x9x16-Inch "Panama" Leader Block Machine. Shipping Weight, 75 pounds.

No. 4655—9x16-Inch COURSE BLOCK PALLET. Shipping weight, 8 pounds.

No. 5555—COURSE BLOCK ATTACHMENT for 8x10x16-Inch "Panama' Leader Block Machine. Shipping weight, 95 pounds.

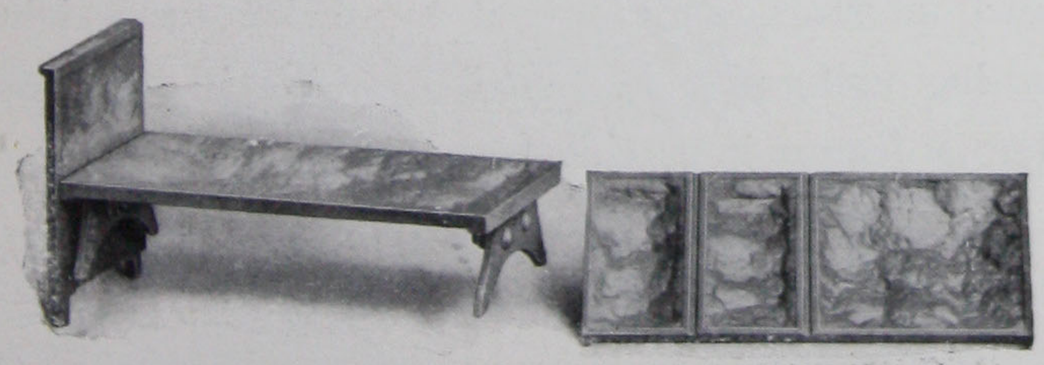
No. 5655—10x16-Inch COURSE BLOCK PALLET. Shipping weight, 10 pounds.

No. 6555—COURSE BLOCK ATTACHMENT for 8x12x16-Inch "Panama" Leader Block Machine. Shipping Weight, 115 pounds.

No. 6755—12x16-Inch COURSE BLOCK PALLET. Shipping weight, 11 pounds.

Veneer Block Attachment

Furnished only in Plain, Rock, Panel and Tooled Faces



Makes blocks 4 inches thick for veneering frame or brick buildings or for building a two-piece wall with air space between, the blocks being tied together with metal ties. Consists of a special face plate mounted on a pair of brackets, which raise it up to within 4 inches of the top of the mold box, face plate for half and quarter blocks and a special endgate for corner blocks. The plain or rock face plate and plain endgates as furnished with the machine must be used in connection with the veneer block attachment. If your machine is not equipped with plain endgates be sure to order them with the veneer block attachment. Also state design wanted and number.

No. 3455—VENEER BLOCK ATTACHMENT for 8x8x16-Inch "Leader" Block Machine. Shipping Weight, 50 pounds.

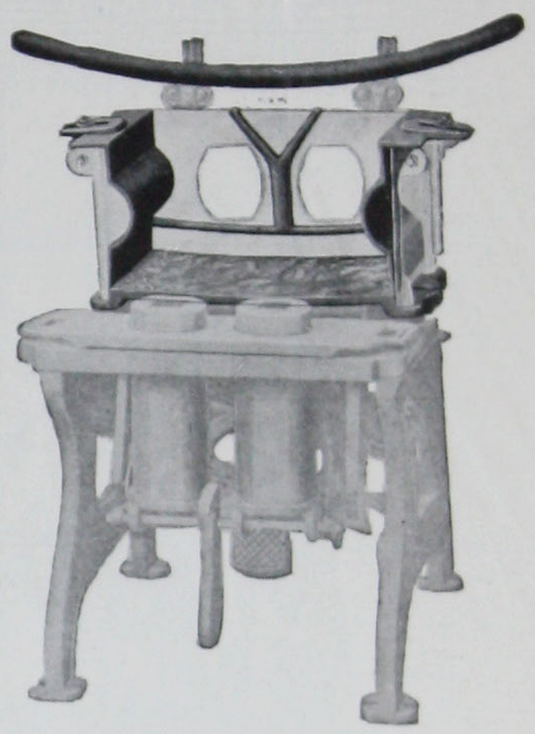
No. 4455—VENEER BLOCK ATTACHMENT for 8x9x16-Inch "Leader" Block Machine. Shipping weight, 55 pounds.

No. 5455—VENEER BLOCK ATTACHMENT for 8x10x16-Inch "Leader" Block Machine. Shipping weight, 60 pounds.

No. 6455—VENEER BLOCK ATTACHMENT for 8x12x16-Inch "Leader" Block Machine. Shipping weight, 70 pounds.

Silo Block Attachment

Suitable only for 8x8x16-Inch

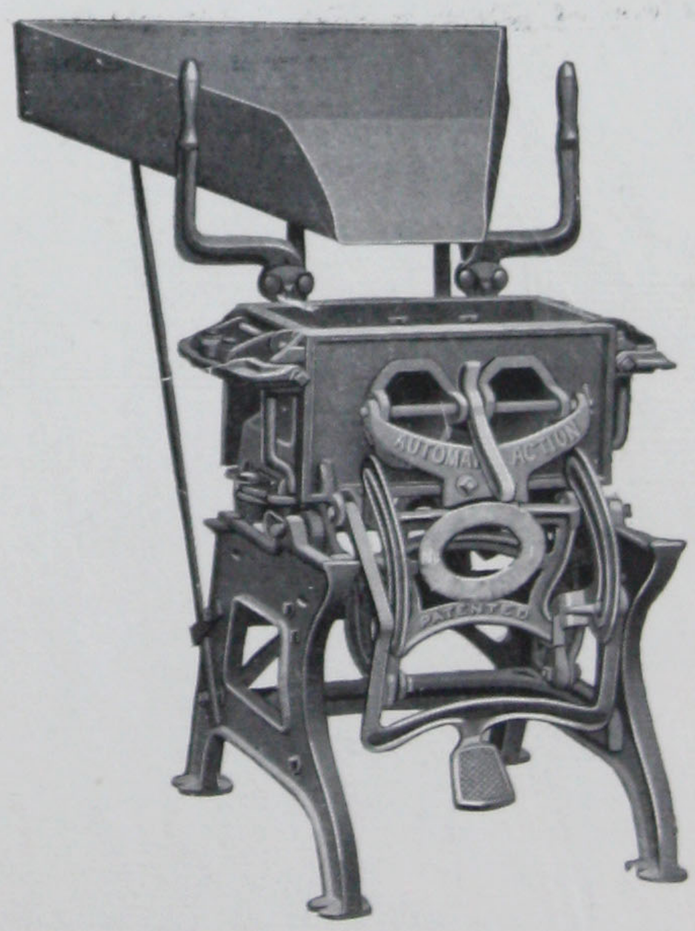


Adapts "Leader" Machine for making blocks having curved face and back and suitable for silos, tanks or similar circular structures. Blocks are made on regular block pallets.

Consists of curved face plate, adjustable end plates for use with plain endgates of regular block mold, a yoke for forming groove in top of block and a special tool for "striking off" back wall with curve to match face plate. This groove provides a place into which a No. 8 re-inforcing wire is laid, thereby making a very strong wall.

No. 3955—SILO BLOCK ATTACHMENT for "Panama" Leader Block Machine. Shipping weight, 40 pounds.

Facing Table



This steel table keeps facing mixture just where wanted, and permits feeding it into machine as needed. Makes work easier and speeds production.

Size 28 inches wide at rear, 11 inches wide at front and 7½ inches deep. Holds 2 cubic feet of facing which is the most practical quantity to mix at one time.

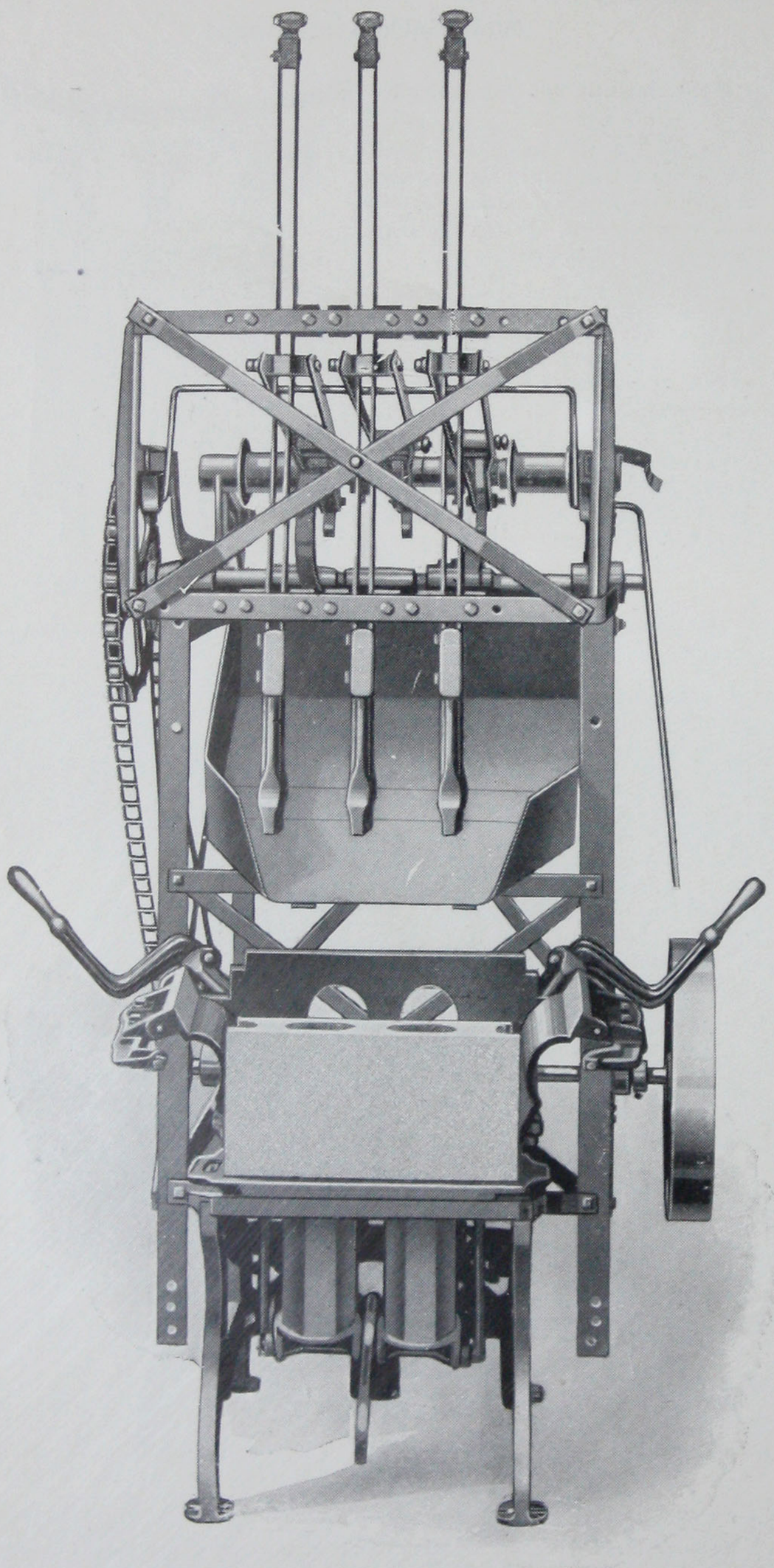
Table is made especially for Leader Machine with offset handles. If wanted for use with old type machine, offset handles can be purchased at small cost.

No. 2555—FACING TABLE for use with "Panama" Leader Block Machine. Shipping weight, 40 pounds.

No. 2655—OFFSET HANDLES for "Panama" Leader Block Machine. Shipping weight, 10 pounds.

The "Panama" Power Tamper

Capacity—One Block a Minute



Designed especially for use with the "Panama" Leader Machine, but can be adjusted for practically any 8x8x16-inch block machine.

It will increase your output and improves the quality of your blocks without necessitating any increase in your force. Tests have proven that two men with the aid of this Panama Tamper can make A BLOCK A MINUTE.

Reduces Labor Cost

No extra man is required to operate the Panama Tamper as the workman who operates the mold box can throw it in or out of operation in a second's time. All that is required is the lifting or lowering of a lever. The tamper does the work while the mold box is being filled, requiring no additional time for the tamping operation.

Panama Tampers require but 1½ horse-power to operate. The tamping rods are raised at regular, timed intervals, and lowered by their own weight, insuring uniformity in tamping, which is the most essential feature in making concrete blocks.

Price of Tamper does not include the Block Machine.

SPECIFICATIONS

No. 7555

Capacity—ONE BLOCK A MINUTE.

Height over all, 7 feet 6 inches.

Length, over all, 5 feet.

Width, over all, 3 feet 6 inches.

Frame made of 2-inch steel angle iron.

Tampers made of cast iron.

Arms of tampers made of 1½-inch by ⅜-inch steel.

Sprocket wheel is cast iron.

Sprocket chain is malleable iron.

Weight of each tamper, 19½ pounds.

Tampers drop a distance of 11 inches.

Tampers strike 110 blows per minute.

All boxings fitted with hard grease cups

Shipp ing weight, 750 pounds.

SEE THIS MACHINE AND SIMPLE OPERATING INSTRUCTIONS ON NEXT PAGE

Attachments for "Panama" Adjustable Block Machine

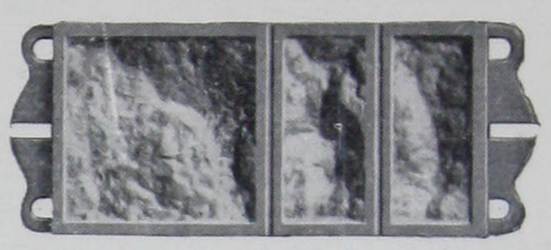
Face Plate for Whole Blocks

Face Plates

To be in position to furnish a great number of designs of blocks means to satisfy a large percentage of prospective purchasers and obtain more business.

Three sizes of Face Plates are available for "Panama" Adjustable Machine for making quarter blocks, half blocks and three-quarter blocks, as described below.

In ordering, be sure to furnish complete data regarding the face plate wanted.



Face Plate for Fractional Blocks

No. 4059—16-Inch FACE PLATE for whole blocks. Mention design wanted. Shipping weight, 17 pounds.

No. 4159—16-Inch FACE PLATE, divided to make fractional blocks, as follows:

Division A—Divided to make two 4-inch blocks and one 8-inch block. Division B—Divided to make two 8-inch blocks. Division C—Divided to make one 4-inch block and one 12-inch block. Division D—Divided to make one 2-inch block, one 6-inch block and one 8-inch block. Division E—Divided to make full length block with half of face smooth, for use in inside corners. Division F—With division line 12 inches from end, for outside angle bay window blocks.

Mention division and design wanted, otherwise we will send Division A, divided for one 8-inch block and two 4-inch blocks. Shipping weight, 17 pounds.

No. 4259—16-Inch CIRCLE FACE PLATE for curved face blocks for circular bay windows and silos. Furnished to conform with circles of 16, 20 or 24-foot diameter, and in plain and rock design. Mention design and radius wanted. Shipping weight, 17 pounds.

No. 4459—20-Inch FACE PLATE for whole blocks. Mention design wanted. Shipping weight, 21 pounds.

No. 4559—20-Inch FACE PLATE, divided to make fractional blocks, as follows:

Division A—Divided to make two 5-inch blocks and one 10-inch block. Division C—Divided to make one 5-inch and one 15-inch block. Division E—Divided to make full length block with half of face smooth, for use in inside corners. Division F—With division line 15 inches from end, for outside angle bay window blocks.

Mention division and design wanted, otherwise Division A for one 10-inch block and two 5-inch blocks will be furnished. Shipping weight, 21 pounds.

No. 4659—20-Inch CIRCLE FACE PLATE for curved face blocks for circular bay windows and silos. Furnished to make blocks to conform with circles of 16, 20 or 24-foot diameter and in rock and plain designs. Mention design and radius wanted. Shipping weight, 21 pounds.

No. 4759—24-Inch FACE PLATE for whole blocks. Mention design wanted. Shipping weight, 26 pounds.

No. 4859—24-Inch FACE PLATE, divided to make fractional blocks, as follows:

Division A—Divided to make two 6-inch blocks and one 12-inch block. Division B—Divided to make two 12-inch blocks. Division C—Divided to make one 6-inch and one 18-inch block. Division D—Divided to make one 8-inch and one 16-inch block. Division E—Divided to make full length block with half of face smooth, for use in inside corners. Division F—With division line 18 inches from end, for outside angle bay window blocks. Plate, Division A, for two 6-inch blocks and one 12-inch block will be furnished unless otherwise ordered. Mention design and division wanted. Shipping weight, 26 pounds.

No. 4959—24-Inch CIRCLE FACE PLATE for curved face blocks for circular bay windows and silos. Furnished to make blocks to conform with circles of 16, 20 or 24-foot diameter and in rock and plain designs. Mention design and radius wanted. Shipping weight, 26 pounds.

Rock Design Endgate

Endgates

All endgates for the "Panama" Adjustable Block Machine are interchangeable and can be furnished in any design for corner blocks. Be sure to state style or design and order the correct size.

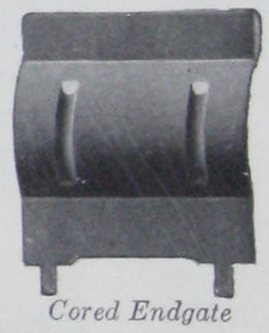
No. 5059—8x4-Inch, for veneer blocks, 4 inchs thick. Shipping weight, 6 pounds.

No. 5159—8x6-Inch, for veneer blocks, 6 inches thick. Shipping weight, 7 pounds.

No. 5259—8x8-Inch, for blocks 8 inches thick. Shipping weight, 8 pounds.

No. 5359—8x10-Inch, for blocks 10 inches thick. Shipping weight, 10 pounds.

No. 5459—8x12-Inch, for blocks 12 inches thick. Shipping weight, 12 pounds.



Cored Endgate

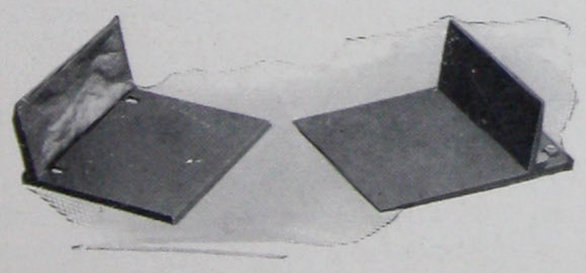
Iron Pallets

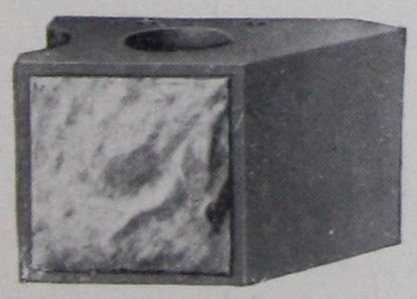
The "Panama" Adjustable Block Machine uses wood pallets, but as many prefer to use iron pallets we are prepared to furnish them in many sizes as shown below.

Be sure to give correct number and order the proper size.

No. 6—	4x16-inch.	Shipping weight, 5 pounds.
No. 16—	6x16-inch.	Shipping weight, 6 pounds.
No. 26—	8x16-inch.	Shipping weight, 7 pounds.
No. 36—	10x16-inch.	Shipping weight, 11 pounds.
No. 46—	12x16-inch.	Shipping weight, 16 pounds.
No. 56—	4x20-inch.	Shipping weight, 8 pounds.
No. 66—	6x20-inch.	Shipping weight, 9 pounds.
No. 76—	8x20-inch.	Shipping weight, 10 pounds.
No. 86—	10x20-inch.	Shipping weight, 12 pounds.
No. 96—	12x20-inch.	Shipping weight, 16 pounds.
No. 106—	4x24-inch.	Shipping weight, 8 pounds.
No. 116—	6x24-inch.	Shipping weight, 15 pounds.
No. 126—	8x24-inch.	Shipping weight, 20 pounds.
No. 136—	10x24-inch.	Shipping weight, 25 pounds.
No. 146—	12x24-inch.	Shipping weight, 30 pounds.

Bay Window Attachment





Inside Angle

Outside Angle

To make bay window blocks it is necessary to have a pair of bay window angle plates of the proper size, a face plate divided for half blocks for making inside angle blocks, and one plate with division line three-fourths the length of the plate for outside angle blocks. A pair of angle plates and the face plates referred to in above description will enable you to make bay window blocks for inside and outside angles as illustrated. Be sure to state design wanted and order the correct size.

No. 2060—BAY WINDOW ANGLE PLATES for blocks 4 inches thick. Shipping weight, 14 pounds.

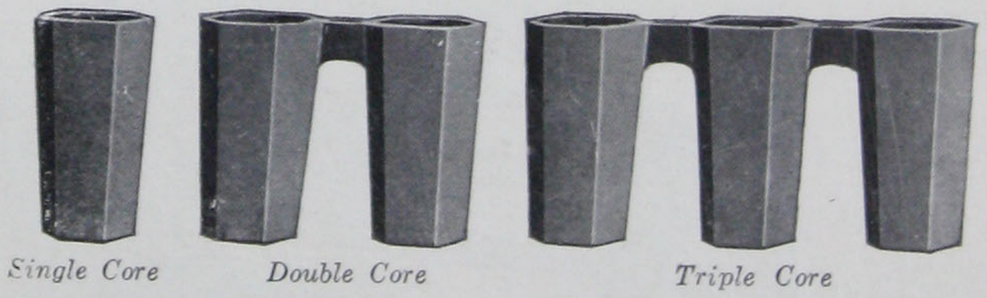
No. 2160—BAY WINDOW ANGLE PLATES for blocks 6 inches thick. Shipping weight, 16 pounds

No. 2260—BAY WINDOW ANGLE PLATES for blocks 8 inches thick. Shipping weight, 18 pounds.

No. 2360—BAY WINDOW ANGLE PLATES for blocks 10 inches thick. Shipping weight, 18 pounds.

No. 2460—BAY WINDOW ANGLE PLATES for blocks 12 inches thick. Shipping weight, 20 pounds.

Cores



Single Core *Double Core* *Triple Core*

To make the proper air space in the various sizes of blocks it is advisable to have a core for each size of block you make. You can use a smaller core if desired, but you can save the price of the core in concrete saved by using a core designed for the size of block you want to make. All cores are made for blocks 8 inches high, the measurements given in the price list being the thickness or width and the length of block. Be sure to select correct size and mention correct catalogue number.

No. 6059—SINGLE CORE for 8x8-inch blocks. Shipping weight, 10 pounds.

No. 6159—SINGLE CORE for 8x10-inch blocks. Shipping weight, 12 pounds.

No. 6359—SINGLE CORE for 10x10 or 10x12-inch blocks. Shipping weight 15 pounds.

No. 6459—SINGLE CORE for 12x12-inch blocks. Shipping weight, 18 lbs.

No. 6559—DOUBLE CORE for 8x15, 8x16 or 8x18-inch blocks. Shipping weight, 20 pounds.

No. 6659—DOUBLE CORE for 10x15, 10x16 or 10x18-inch blocks. Shipping weight, 30 pounds.

No. 6759—DOUBLE CORE for 12x15, 12x16 or 12x18 -inch blocks. Shipping weight, 35 pounds.

No. 6859—DOUBLE CORE for 8x20-inch blocks. Shipping weight, 25 lbs.
No. 6959—DOUBLE CORE for 10x20-inch blocks. Shipping weight, 30 lbs.
No. 7059—DOUBLE CORE for 12x20-inch blocks. Shipping weight, 35 lbs
No. 7159—TRIPLE CORE for 8x24 -inch blocks. Shipping weight, 30 lbs.
No. 7259—TRIPLE CORE for 10x24-inch blocks. Shipping weight, 35 lbs.
No. 7359—TRIPLE CORE for 12x24-inch blocks. Shipping weight, 45 lbs.

"Panama" Adjustable Block Machine

Adjusted for Making Blocks 8x12x24 in.

By moving the hand wheels and wedges into different notches, illustrated on the two machines on this page, they may be adjusted to make different sizes of blocks. Little time is required to make the change.

Adjusted for Making Blocks 8x8x20 in.

Here is a machine that will make blocks 12 inches high up to 24 inches in length and in widths of 4, 6, 8, 10, and 12 inches.

It is simple to adjust and operate and two men can produce 125 to 150 8x8x16 blocks per day under ordinary conditions.

Adjustment for Length

The face plate controls the length of the block. The brackets are securely held in position by means of a wedge which is tightened and locked by hand wheel screws marked K3 in the illustration, which shows position of brackets set for 24-inch face plate. Moving the right hand bracket into the hole directly to the left sets the machine for 20-inch face plates. Moving the left hand bracket into the hole directly to the right sets the machine for 16-inch face plates. Any length under 16-inch is provided by division lines on the face plate which holds the lower end of a dividing plate, while the upper end is held by a special hopper and guide furnished with the machine.

Adjustment for Width

As blocks are made face down, the depth of the mold box controls the thickness of block. The illustration shows machine set for making blocks 12 inches thick. To make blocks 10 inches thick the face plate brackets are moved up one hole. Moving the brackets up to the next hole makes blocks 8 inches thick. The next hole sets the machine for blocks 6 inches thick, and the top hole for veneer blocks 4 inches thick. All these adjustments can be made quickly and easily.

In the illustration you will notice that the adjusting screws are changed so that the machine will make a block 20 inches long, 8 inches thick and 8 inches high.

Capacity

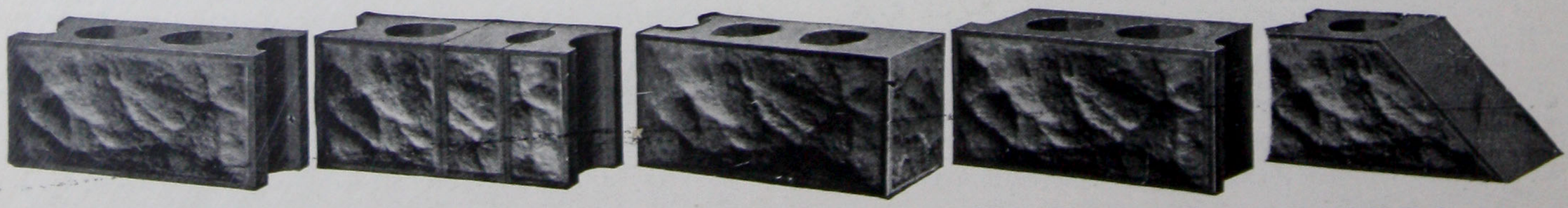
The harder you tamp the tighter the mold box holds together. This simplicity makes it a quick working machine, so that two men under ordinary conditions can easily make from 125 to 150—8x8x16-inch blocks per day and nearly as many of the larger sizes. We have had reports from some of our customers who have done even better than this.

Uses Wood or Iron Pallets

Wood pallets have no core openings and on this account will not warp or split readily. The part of the machine on which the pallet rests is adjustable for pallets of variable thickness, so any pallet similar to the sample furnished may be used. This makes it possible for anyone to make the pallets from practically any kind of lumber and enables you to keep the pallet tight up against mold box.

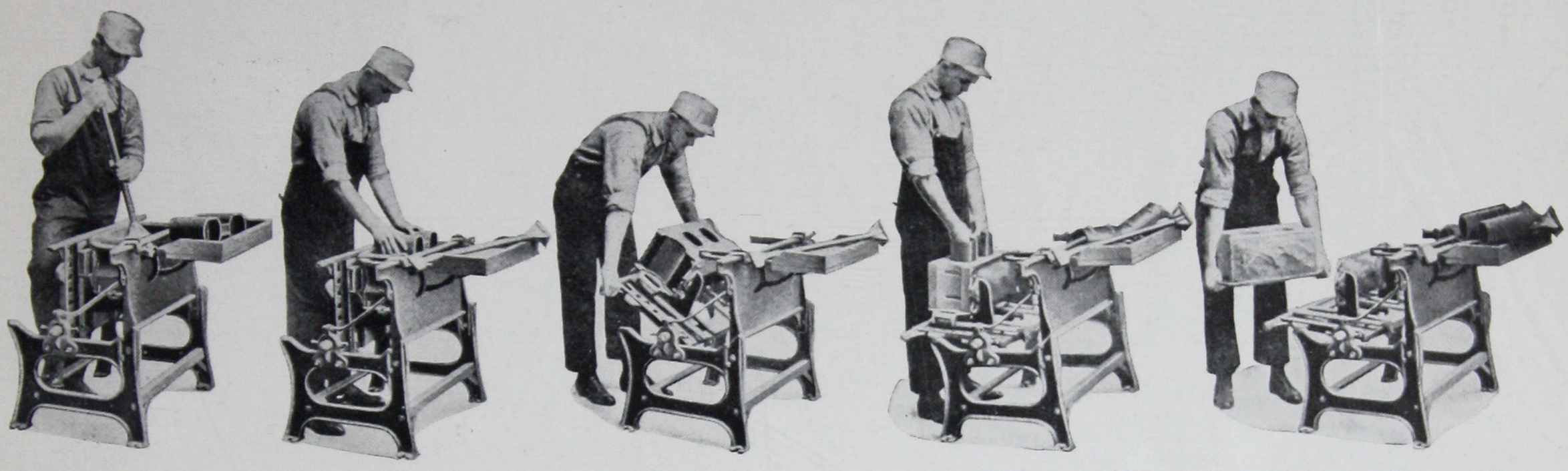
As many block makers prefer to use iron pallets, the "Panama" Adjustable Machine is arranged to use iron pallets also, which we can furnish at a reasonable price. The finished blocks are taken from the machine on the pallet without using a carrier of any kind. Pallets 24 inches long can be used for blocks of any length, making it unnecessary to provide a supply of pallets for each size of block.

The Following or any of Blocks on pages 12 and 13 can be made on the above Machine. Simply order Face Plates Wanted



Whole Stretcher Block | *One half block and two Quarter Blocks at one operation* | *Corner Block* | *Block with opening for floor joists* | *Gable Block*

Note How Easily Blocks are Made on the "Panama" Adjustable Machine



A block is started and tamped in the Panama Adjustable Block Machine in the same manner as in any other machine.

Inserting the core. The double core is in one piece and can be dropped in place as easily and quickly as operating a lever. Single, double and triple cores are illustrated on page 17.

Releasing the block. The front wall is pulled forward, thus turning block over on the pallet. The block is well supported by the ends and core while being turned.

The endgates have been lifted from block and placed on tool shelf. Core is being drawn out. Note that core is pulled out vertically, which permits the use of a wet mixture to make the block.

The block is finished and carried away on the pallet. A new pallet is then placed in position, the endgates slipped back and the front wall lifted in position to make ready for another block. No complicated levers or latches to fuss with or cause trouble.

Complete Outfits

For 16-Inch Blocks

No. 2859—COMPLETE 16-Inch "PANAMA" ADJUSTABLE BLOCK MAKING OUTFIT. Will make blocks 2, 4, 6, 8, 12 and 16 inches in length and any of these lengths 4, 6, 8, 10 and 12 inches in thickness, all 8 inches high. Shipping weight, 675 pounds.

For 20-Inch Blocks

No. 3459—COMPLETE 20-INCH "PANAMA' ADJUSTABLE BLOCK MAKING OUTFIT. Will make twelve sizes of rock face blocks. Lengths 5, 10, 15 and 20 inches and any of these lengths, 8, 10 and 12 inches in thickness, all 8 inches high. Shipping weight, 750 pounds.

For 24-Inch Blocks

No. 3359—COMPLETE 24-Inch "PANAMA" ADJUSTABLE BLOCK MAKING OUTFIT. Will make blocks, 2, 4, 5, 6, 8, 10, 12, 16, 18, 20 and 24 inches in length and any of these lengths 4, 6, 8, 10 and 12 inches in thickness, all 8 inches high. Shipping weight, 1,075 pounds.

Complete Outfits Include

One Rock Face Plate for whole blocks.

One Rock Face Plate for half and quarter blocks.

Two Rock Endgates for corner and pier blocks.

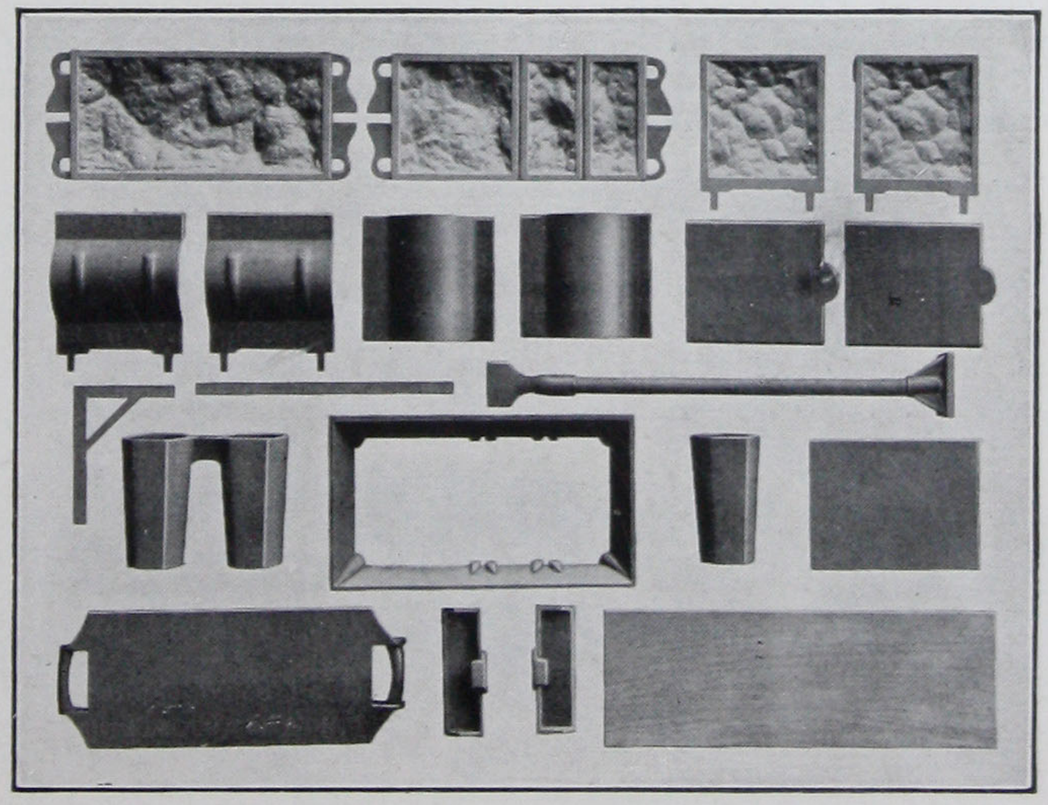
Two Cored Endgates for regular stretcher blocks.

Two Cored Dividing Plates for half or quarter blocks with core ends.

Two Plain Dividing Plates for half or quarter blocks, with straight ends.

One Iron Try Square to enable you to adjust flask true and square.

One Striker to scrape off extra material when block is finished.



One Double End Tamper.

One Double Core for air space in whole blocks (24-inch machines have triple core forming three air spaces in block).

One Combination Hopper and Guide for dividing plates.

One Single Core for air space in half blocks.

One Dividing Plate for making gable blocks.

One Sample Iron Pallet.

Two Joist Block Attachments.

One Sample Wood Pallet.

Single Machines

For 16-Inch Blocks

No. 2559—8x8x16-Inch "PANAMA" ADJUSTABLE BLOCK MACHINE. Will make whole, half and quarter size blocks in all varieties shown on opposite page. Shipping weight, 425 pounds.

No. 2659—8x10x16-Inch "PANAMA" ADJUSTABLE BLOCK MACHINE. Will make whole, half and quarter size blocks in all varieties shown on opposite page. Shipping weight, 440 pounds.

No. 2759—8x12x16-Inch "PANAMA" ADJUSTABLE BLOCK MACHINE. Will make whole, half and quarter size blocks in all varieties shown on opposite page. Shipping weight, 460 pounds.

For 20-Inch Blocks

No. 3559—8x8x20-Inch "PANAMA" ADJUSTABLE BLOCK MACHINE. Will make whole, half and quarter size blocks in all varieties shown on opposite page. Shipping weight, 440 pounds.

No. 3659—8x10x20-Inch "PANAMA" ADJUSTABLE BLOCK MACHINE. Will make whole, half-and quarter size blocks in all varieties shown on opposite page. Shipping weight, 460 pounds.

No. 3759—8x12x20-Inch "PANAMA" ADJUSTABLE BLOCK MACHINE. Will make whole, half and quarter size blocks in all varieties shown on opposite page. Shipping weight, 485 pounds.

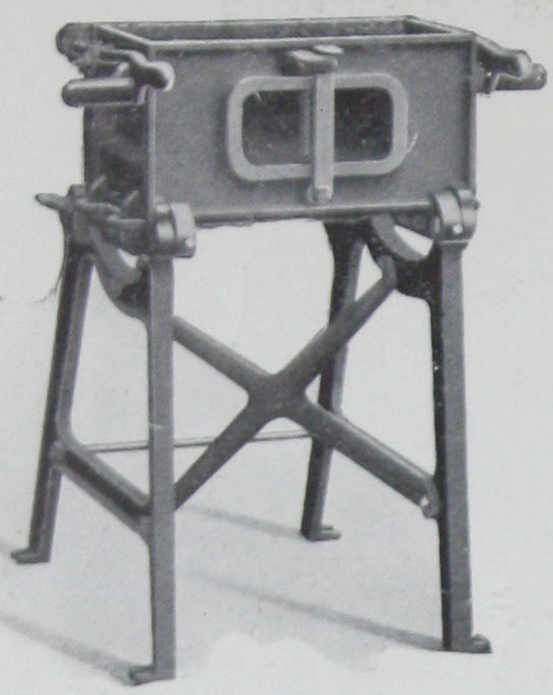
For 24-Inch Blocks

No. 3059—8x8x24-Inch "PANAMA" ADJUSTABLE BLOCK MACHINE. Will make whole, half and quarter size blocks in all varieties shown on opposite page. Shipping weight, 475 pounds.

No. 3159—8x10x24-Inch "PANAMA" ADJUSTABLE BLOCK MACHINE. Will make whole, half and quarter size blocks in all varieties shown on opposite page. Shipping weight, 500 pounds.

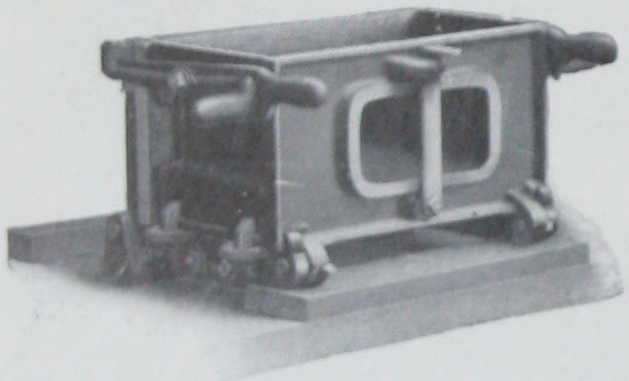
No. 3259—8x12x24 Inch "PANAMA" ADJUSTABLE BLOCK MACHINE. Will make whole, half and quarter size blocks in all varieties shown on opposite page. Shipping weight, 540 pounds.

With Single Air Space



Machines With Legs

No.	For Making Blocks	Shipping Weight
857	8x8x16 inches	155 pounds
1057	8x10x16 inches	200 pounds
1257	8x12x16 inches	225 pounds



Without Legs For Bench Use

This machine has lugs for fastening to bench.

No.	For Making Blocks	Shipping Weight
1657	8x 8x16 inches	130 pounds
1757	8x10x16 inches	140 pounds
1857	8x12x16 inches	155 pounds

"Panama Standard" Block Machines

Capacity, 100 to 125 Blocks Per Day, With Two Men

Here is a machine for the man who wants to make blocks for his own use. It has not the capacity of our "Panama" Leader Machine, nor as many automatic features, but will prove satisfactory in every particular where immense output is not essential.

Blocks are made face down which permits making the face of block of better quality and appearance than the rear.

Blocks are perfect in shape and true to sizes.

Wooden pallets are used and anyone handy with a saw and hammer can make them at small cost from common lumber.

Machines are furnished with single or double cores for forming the air spaces. These cores draw vertically after turning the block, which makes it possible to use a wet mixture and produce better blocks than possible with a dry mixture. There is no possibility of blocks collapsing as sometimes happens when cores are drawn before turning block. While tamping, the mold is held securely in position by a single latching device which is quickly released or locked.

Strongly Constructed

The machine is well constructed and thoroughly braced. The walls are attached to the rockers by steel pivot pins. The face plate may be easily and quickly changed, being held securely in place by bolts. Endgates have ears which fit into lugs on face plates and can also be easily changed. The flask or mold box is locked securely by simple latches which are quickly locked and released.

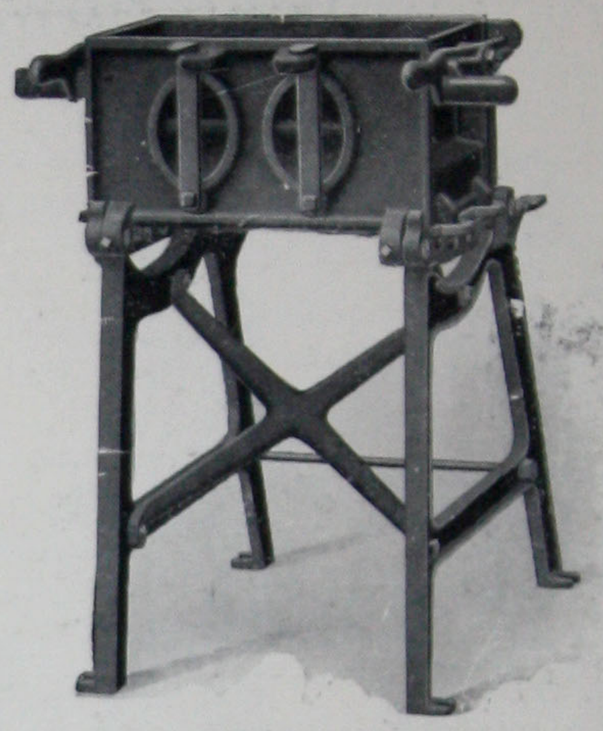
Operation

To release finished block, turn flask entirely over—pull cores straight up—then lift on latch handles. This releases front and back plates and endplates, leaving block free on pallet ready to be carried away. To start next block simply put another pallet in place, raise front wall into position and latch.

Capacity

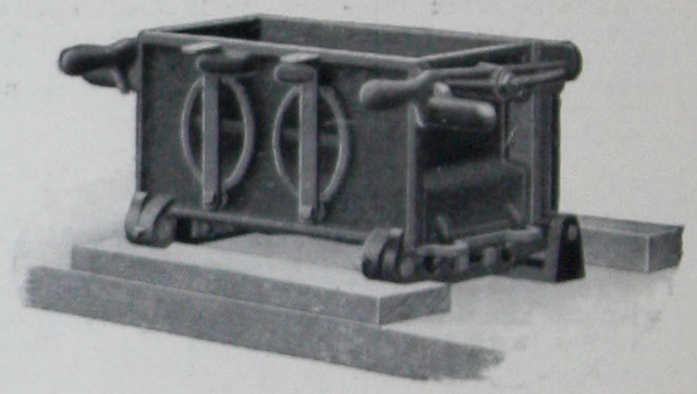
With this machine two men can mix the concrete, manufacture and handle **100 to 125 blocks per day.**

With Double Air Space



Machines With Legs

No.	For Making Blocks	Shipping Weight
957	8x8x16 inches	165 pounds
1157	8x10x16 inches	210 pounds
1357	8x12x16 inches	235 pounds



Without Legs For Bench Use

This machine has lugs for fastening to bench.

No.	For Making Blocks	Shipping Weight
457	8x8x16 inches	140 pounds
557	8x10x16 inches	150 pounds
657	8x12x16 inches	165 pounds

Parts Furnished With Each Machine

Rock face plates are regularly furnished as illustrated below, but if specifically stated, any design on pages 12 to 13 can be supplied instead. For other face plates available see following page.

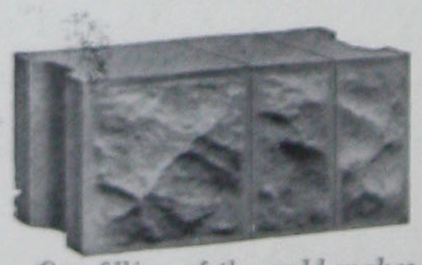
The following equipment is furnished with each machine for making all blocks illustrated below.

One Rock Face Plate for whole blocks.
One Rock Face Plate for half and quarter blocks.
Two Rock Endgates.
Two Core Endgates.
Two Dividing Plates.
One Gable Block Dividing Plate for making gable blocks.
Two Joist Block Attachments for making opening in block for floor joists.
Plugs for making solid blocks.
One Striker.
One Double End Tamper.
One Sample Wood Pallet.

Rock Face Solid Block

Rock Face Whole Block

Rock Face Corner Block



One filling of the mold makes one half block and two quarter blocks.

Rock Face Block with opening for joist.

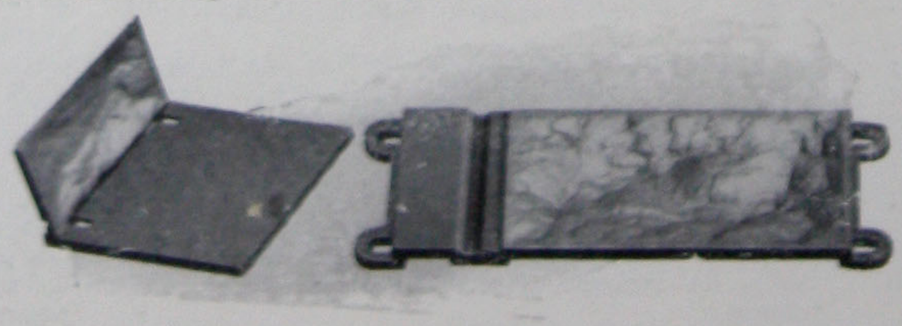
Rock Face Gable Block

Bay Window Attachment

Making of bay window blocks requires a special attachment as illustrated. The attachment consists of a special face plate and a special angle plate for making outside corner blocks. The angle plate is adjustable to any angle commonly used for bay windows. Nearly all bay windows are built at an angle of 45 degrees, and the attachment is therefore set for this angle. Inside corner blocks are made by using the regular half and quarter plates in the machine, in connection with the gable dividing plate, making block as shown. Be sure to state design wanted and proper size.

Inside Corner Block

Outside Corner Block



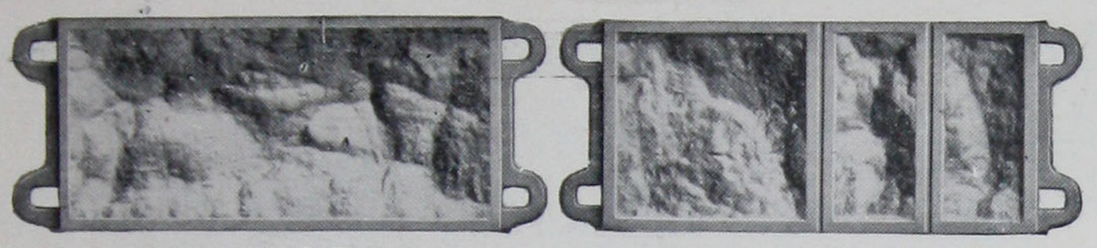
No. 2457—BAY WINDOW ATTACHMENT FOR 8x8x16-Inch "PANAMA" STANDARD BLOCK MACHINE. Shipping weight, 30 pounds.

No. 3457—BAY WINDOW ATTACHMENT FOR 8x10x16-Inch "PANAMA" STANDARD BLOCK MACHINE. Shipping weight, 35 pounds.

No. 4457—BAY WINDOW ATTACHMENT FOR 8x12x16-Inch "PANAMA" STANDARD BLOCK MACHINE. Shipping weight, 40 pounds.

Attachments for "Panama Standard" Block Machines

Face Plates



Whole Block Face Plate *Fractional Block Face Plate*

These Plates can be used in any "Panama" Standard Block Machine of any size. Block design shown in illustration. See pages 10 and 11 for the different designs we can furnish.

Whole Block Plates are used for making regular 16-inch blocks. If block is to be used on a corner, a return endgate must be ordered separately as listed below.

Circle Block Plates are curved plates in 16-inch length and make a block with curved face, conforming to circles of 8 feet and 12 feet in diameter. We always furnish plate for 8-foot circles unless ordered differently. These blocks are used for circular bay windows, towers or any circular wall which does not have to withstand a bursting strain, such as tanks or silos. For building tanks and silos which must be reinforced, see page 15.

Fractional Face Plates are used to make less than a full 16-inch block and can be furnished with dividing lines for making quarter blocks, half blocks, and three-quarter blocks as follows:

Division A—Divided to make two 4-inch and one 8-inch block. This plate is illustrated above. Division B—Divided to make two 8-inch blocks. Division C—Divided to make one 4-inch block and one 12-inch block. Division E—Divided to make full length block with one-half of face smooth, for blocks to be used in inside corners.

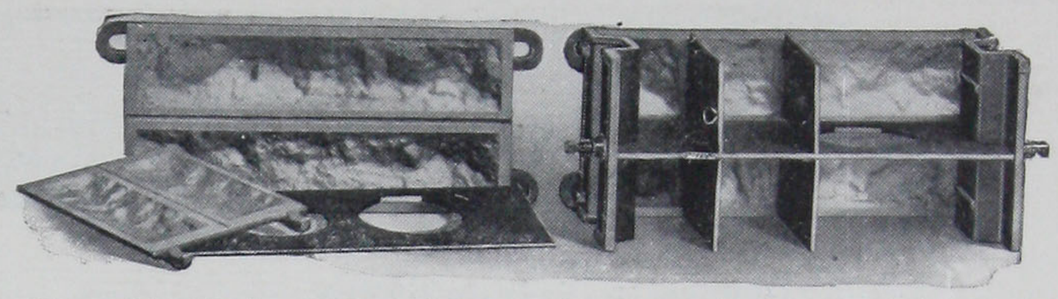
We always furnish plate divided to make one-half block and two quarter blocks unless you order otherwise. All plates weigh about 15 pounds.

No. 2157—WHOLE BLOCK FACE PLATE for "Panama" Standard Block Machine, Shipping weight, 15 pounds. State design wanted.

No. 2257—FRACTIONAL BLOCK FACE PLATE for "Panama" Standard Block Machine. Shipping weight, 15 pounds. State design and division wanted.

No. 2857—CIRCLE BLOCK CIRCLE FACE PLATE for "Panama" Standard Machine, Shipping weight, 15 pounds. State design and diameter wanted.

Four-Inch Course Block Attachments



For making blocks 4 inches high instead of the regular 8 inches. Two blocks made with one filling of mold box. 4-inch blocks are used for lattice and porch work, and for belt courses around a building to break up the monotony of one style or size of block. The attachment consists of a face plate for making two whole blocks, one face plate for making two half and four quarter blocks, one pair core end doors, one return end door to match the face plate, two dividing pallets and a set of four dividing plates for making half and quarter blocks. It is necessary to have one dividing pallet for every two course blocks you intend to make in a day. One of the course blocks rests on the regular pallet in the machine and the other on the dividing pallet. Be sure to order enough additional pallets for a day's output. This attachment is complete for making the regular blocks and return corner blocks in whole, half and quarter sizes

We can furnish 4-inch Course Block Attachment only in the following designs: Plain rock, panel and tooled. Be sure to tell us whether your machine has one or two cores, what design you want and order the correct size.

No. 2657—COURSE BLOCK ATTACHMENT For 8x8x16-Inch "PANAMA" STANDARD BLOCK MACHINE. Shipping weight, 46 pounds.

No. 2757—COURSE BLOCK PALLET For 8x8x16-Inch "PANAMA' STANDARD BLOCK MACHINE. Shipping weight, 6 pounds.

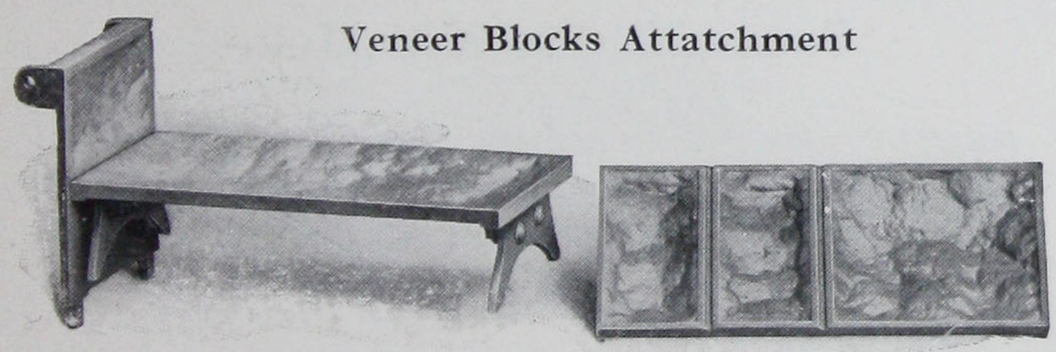
No. 3657—COURSE BLOCK ATTACHMENT For 8x10x16-Inch "PANAMA" STANDARD BLOCK MACHINE. Shipping weight, 53 pounds.

No. 3757—COURSE BLOCK PALLET For 8x10x16-Inch "PANAMA" STANDARD BLOCK MACHINE. Shipping weight, 8 pounds.

No. 4657—COURSE BLOCK ATTACHMENT FOR 8x12x16 Inch "PANAMA" STANDARD BLOCK MACHINE. Shipping weight, 60 lb.

No. 4757—COURSE BLOCK PALLET FOR 8x12x16-Inch "PANAMA" STANDARD BLOCK MACHINE, Shipping weight, 10 pounds.

Veneer Blocks Attatchment



Makes blocks 4 inches thick, for veneering frame or brick buildings, or for building a two-piece wall with air space between, the blocks being tied together with metal ties. Our attachment consists of a special face plate mounted on a set of brackets which raises it up within 4 inches of the top of the mold box.

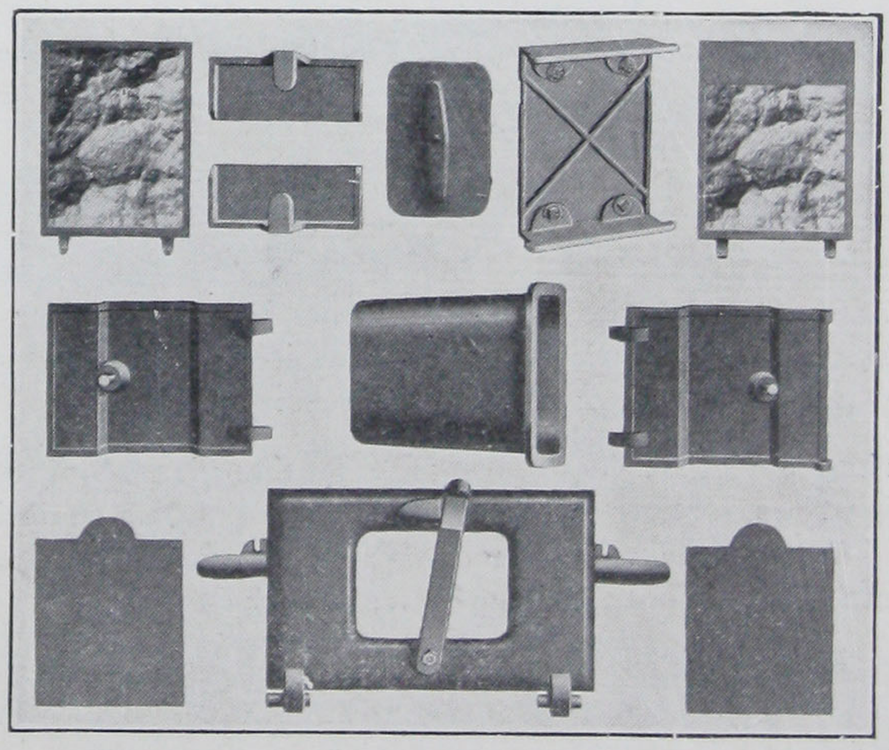
The plain or rock face plate and plain endgates must be used in the machine in connection with the veneer block attachment to make regular blocks, and a special endgate is provided for corner blocks. If your machine is not equipped with plain endgates, be sure to order them with the veneer block attachment. Price includes face plate for whole blocks, face plate for half and a quarter blocks two brackets on which face plate is supported and a special endgate for corner blocks. Be sure to state design and proper size.

No. 2557—VENEER BLOCK ATTACHMENT For 8x8x16-Inch "PANAMA" STANDARD BLOCK MACHINE. Shipping weight, 35 pounds.

No. 3557—VENEER BLOCK ATTACHMENT For 8x10x16-Inch "PANAMA" STANDARD BLOCK MACHINE. Shipping weight, 40 pounds.

No. 4557—BAY WINDOW ATTACHMENT FOR 8x12x16-Inch "PANAMA" STANDARD BLOCK MACHINE. Shipping weight, 45 pounds.

Parts for Changing Size of Blocks

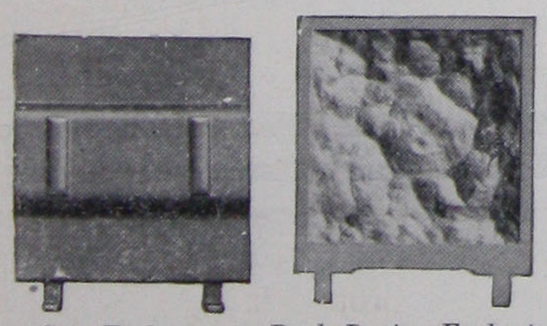


By purchasing additional flask attachments it is possible to make various sizes of blocks on the ' Panama" Standard Machine.

The Attachment consists of a back wall with core, sample wood pallet, two core endgates, and two rock (or other design), endgates, two dividing plates, two joist block attachments and core plug. The 8x10x16-inch and 8x12x16-inch attachments include a special endgate and plate for making blocks with 8x8-inch return end for turning corners. This breaks joints exactly in the center. Please do not order the flask attachment unless you have a "Panama" Standard Block Machine, because the attachment is not a complete mold and cannot be used alone to make blocks. State whether single or double core style is desired.

No.	For Making Blocks	Shipping Weight
5757—Flask Attachment	—8x8x16 inches	110 lbs
5857—Flask Attachment	—8x10x16 inches	135 lbs
5957—Flask Attachment	—8x12x16 inches	165 lbs

End Gates



Core Endgate *Rock Design Endgate*

To make blocks for corner use it is necessary to have endgates that match the face plates. In many cases but one gate is needed as the blocks can be turned either way for right or left hand corners. Some designs are not reversible, however, and for these you require both right and left ends. Right and left are determined by facing the block machine in working position. Full information in regard to ends required for each design is given on pages 10 and 11.

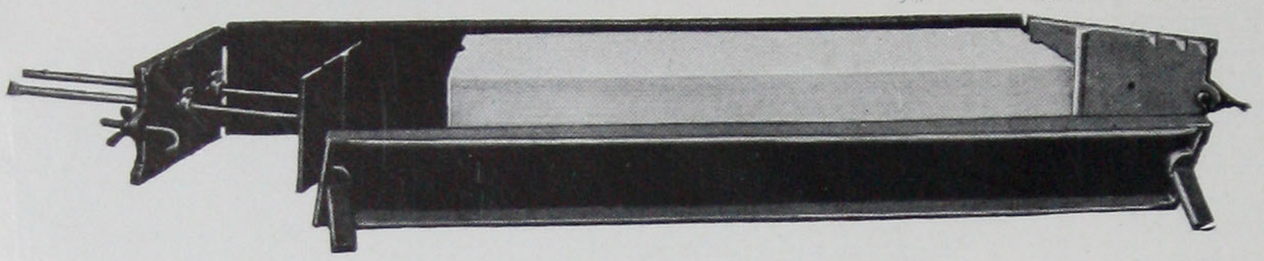
Be sure to state size and design wanted.

No. 2357—ENDGATE FOR 8x8x16-Inch "PANAMA" STANDARD BLOCK MACHINE. State design and whether right or left is wanted. Shipping weight, 7 pounds.

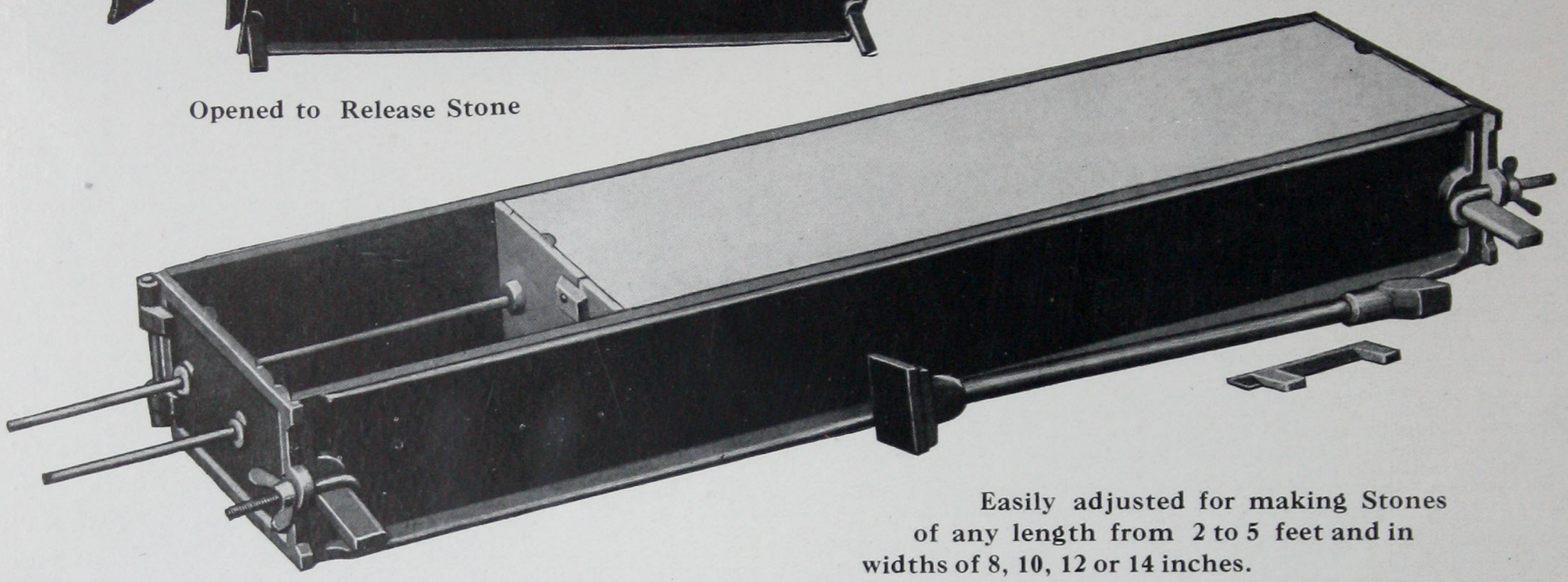
No. 3357—ENDGATE FOR 8x10x16-Inch "PANAMA" STANDARD BLOCK MACHINE. State design and whether right or left is wanted. Shipping weight, 9 pounds.

No. 4357—ENDGATE FOR 8x12x16-Inch "PANAMA" STANDARD BLOCK MACHINE. State design and whether right or left is wanted Shipping weight, 11 pounds.

"Panama" Adjustable Sill and Cap Machine



Opened to Release Stone



Easily adjusted for making Stones of any length from 2 to 5 feet and in widths of 8, 10, 12 or 14 inches.

This is undoubtedly the most practical adjustable Sill and Cap Machine ever produced. It is easily adjusted for making window sills or caps, steps, water table and coping blocks in any of the sizes mentioned above.

This is an excellent addition to the equipment of any concrete plant, as this product is in regular demand and carries more than the average margin profit.

Adjustment For Size is Easy

To change the length, loosen set screws in set collars on adjusting rods and set the stop off at desired length; slide set collars up against endgate and tighten set screws.

To change width, remove stop off extension pieces by loosening two screws, making a stop off piece corresponding to desired width. Front plate will then come up snugly against stop off piece and is held in notches in endgates at each end.

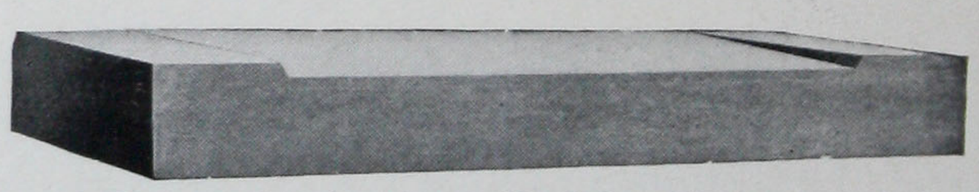
This machine makes stones 7¾ inches high, so that they lay up in the wall to match properly with blocks measuring 7¾ inches high or 8 inches with mortar joint.

The "Panama" Sill and Cap Machine is mechanically perfect in every respect. It is made throughout of No. 1 gray iron castings and all parts are properly assembled and fitted so that it will make stone that is perfectly true to dimension and in shape. It is a very simple machine and can be adjusted for different sizes of stone very easily and quickly. All the plates are heavily reinforced with ribs on the upper and lower edges, preventing any tendency to spring while tamping.

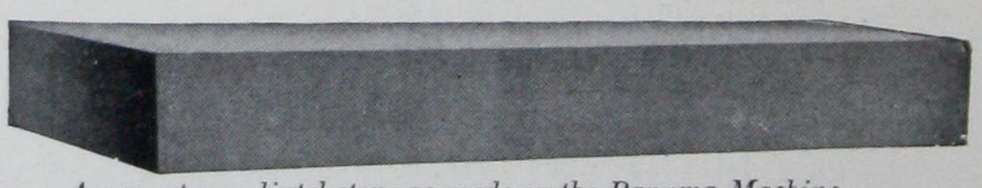
NO STAND OR PALLET NEEDED With This "Panama" Machine

The stones can be made on any smooth floor or plank. If you wish you can make the stone right in the wall, without handling. It is safer and easier to move the machine from a stone of the size that is made on this machine than it is to carry the stone from the machine. The "Panama" Adjustable Sill and Cap Machine will make a perfect stone very quickly and with little labor. Our methods effect a considerable saving as it does away with the expense of pallets, which would have to be of 2-inch lumber to be of proper strength.

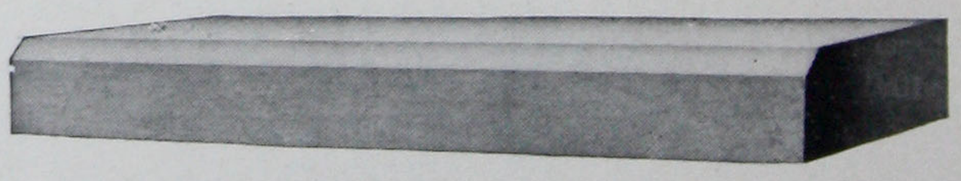
Some Sills It Will Make



A sill stone made by inserting wood block in mold to form watershed



A cap, step or lintel stone as made on the Panama Machine



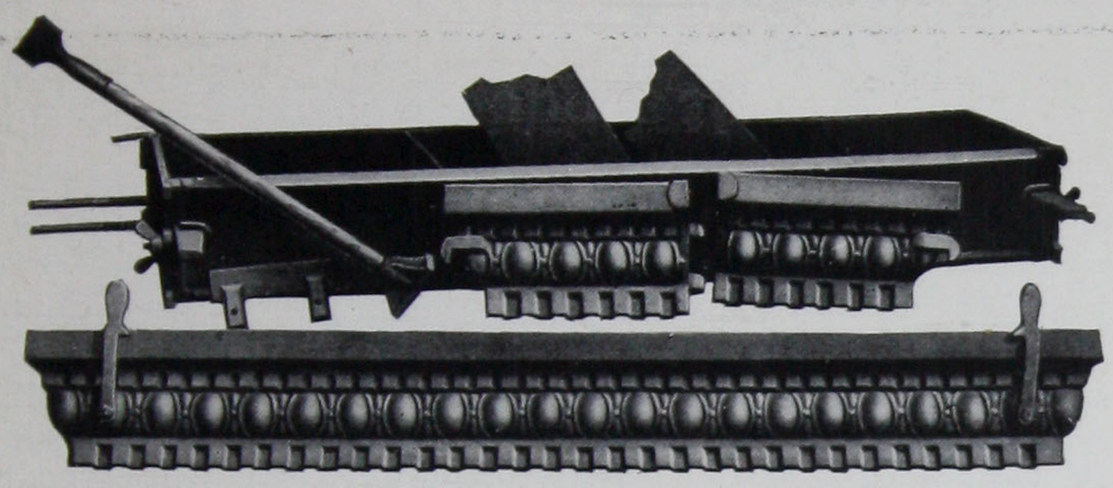
A water table stone made by placing a triangular strip in corner of mold

We do not furnish wood strips for sill and water table, as anyone can easily make them.

It is recommended that caps and sills be re-inforced by the use of ⅜ or ½-inch rods, old pipe, heavy hoop iron or twisted fence wire. Four to six pieces should be placed near the top and bottom.

No. 1058—"PANAMA" ADJUSTABLE SILL AND CAP MACHINE. Shipping weight, 180 pounds.

You Can Easily Make Ornamental Work on the "Panama" Adjustable Sill and Cap Machine



"Panama" Adjustable Sill and Cap Machine, Complete With Egg and Dart Ornamental Plates

By the use of simple detachable molds you can make ornamental as well as plain cap and sill stones on the "Panama" adjustable Sill and Cap Machine, illustrated on the opposite page.

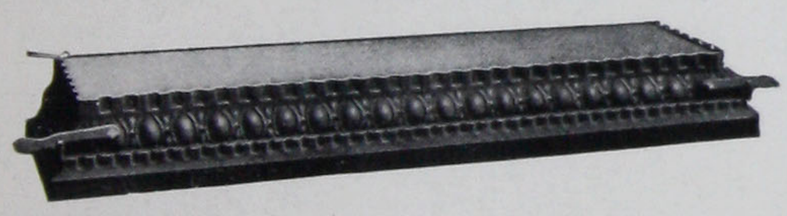
The equipment illustrated above consists of all necessary parts for making plain or ornamental stones. It contains the "Panama" Adjustable Sill and Cap Machine, a complete set of face plates, endgates and stop-off pieces, in the beautiful egg and dart design, as illustrated above. The stop-off pieces are used for making square end stone and fractional pieces any length up to 5 feet.

Several other ornamental face plates are available as illustrated below, which afford many possibilities for working out pleasing wall combinations.

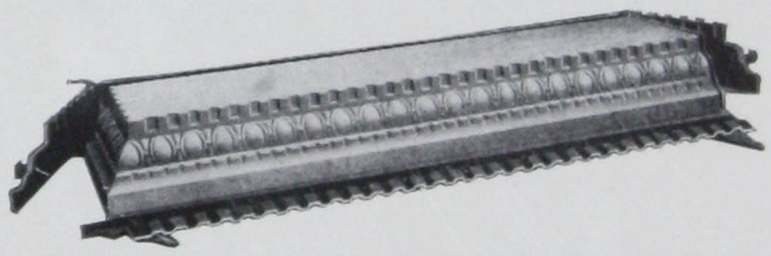
No. 1458—COMPLETE "PANAMA" SILL, CAP AND CAPPING OUTFITS, including machine with egg and dart design face plate, 2 endgates and two stop-offs. Shipping weight, 300 pounds.

Ornamental Face Plates For Use With "Panama" Adjustable Cap and Sill Machine

Egg and Dart Mold



In the Mold



Opening the Mold

The Finished Sill

Stone in mold Note that no pallet or stand is required.

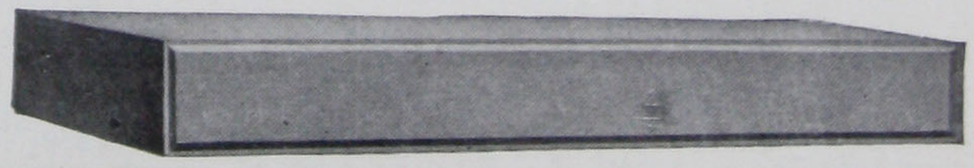
Mold opened and stone released.

This equipment is for making the egg and dart design on the "Panama" Adjustable Sill and Cap Machine and consists of all parts to make stone with right or left return end or corner and stop-off pieces for both ends. Block can be made in any length up to 5 feet with square or return end.

No. 1558—"PANAMA" EGG AND DART MOLD for use only with "Panama" Adjustable Sill and Cap Machine. Shipping weight, 130 pounds Unless you have machine, order complete equipment above.

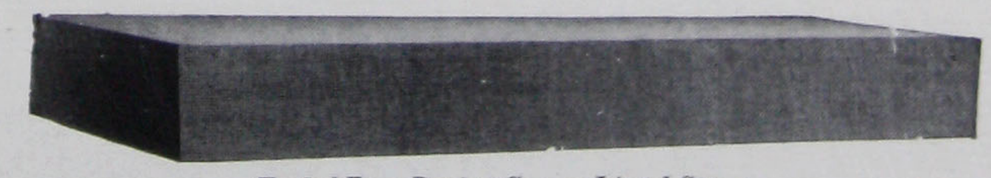
Ornamental Design Faces

Rock Face Design Cap or Lintel Stone



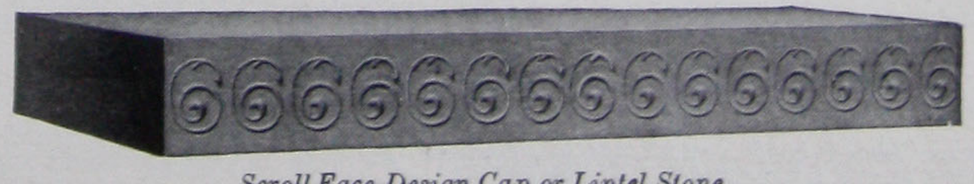
Panel Face Design Cap or Lintel Stone

Tooled Edge Rock Design Cap or Lintel Stone



Tooled Face Design Cap or Lintel Stone

Tooled Edge Bushhammer Design Cap or Lintel Stone



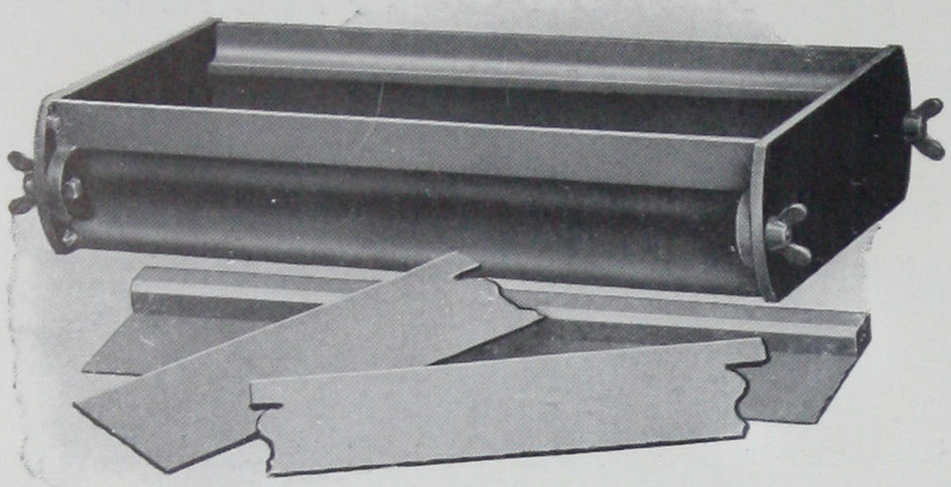
Scroll Face Design Cap or Lintel Stone

Face plates may be obtained for making any of the above designs on the "Panama" Adjustable Sill and Cap Machine.

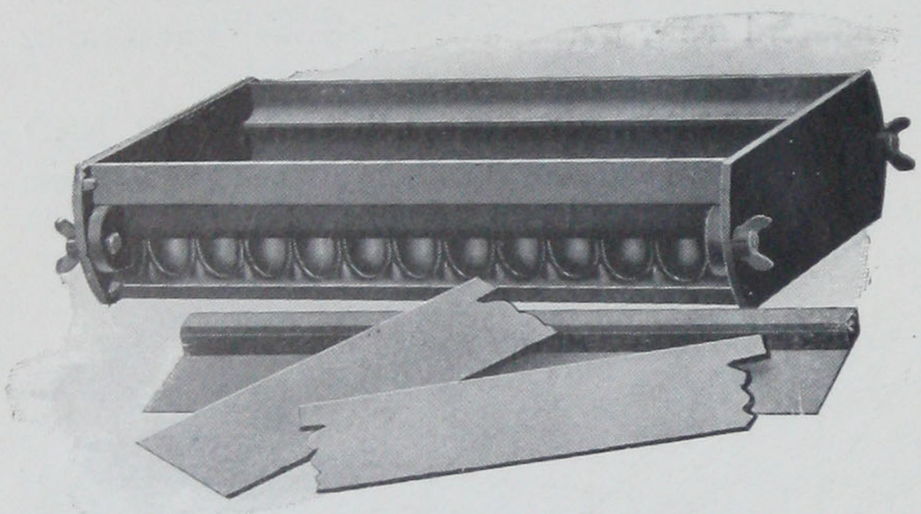
To turn corners on any of these designs you simply make a mitered end by putting a strip of wood or steel across one corner of mold box.

No. 1158—"PANAMA" ORNAMENTAL FACE PLATE for Adjustable Sill and Cap Machine. Be sure to state design wanted and do not order unless you have machine. Shipping weight, 55 pounds.

'Panama" Coping Molds



Plain Mold



Ornamental Mold

Make coping stones that can be used with pleasing effect in any concrete wall. These stones measure 2 feet long, 5 inches thick, 10 inches wide at bottom, 11¼ inches wide at top, and may be made in plain or ornamental design.

Both 24-inch side plates of these molds are alike, so stones with ornamental front and back can be made, which is a very desirable feature when cap stone for a concrete block fence is desired. If stone is to be used as coping on a flat roof building, so that only one ornamental face is required, the long filler plate is inserted against the back plate. To turn corners the dividing plate is placed diagonally across one corner, making a stone with mitered end. Miter plates are furnished to make miter ends on stones where one or both sides are ornamental. To make one end and both sides with design as would be required in porch rail and fence work, the special end plate is needed. We especially recommend the Egg and Dart Design.

No. 6757—EGG AND DART COPING MOLD. Complete with filler and dividing plates Shipping weight, 65 pounds.

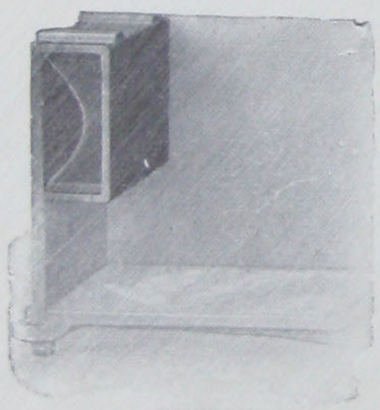
No. 6657—EGG AND DART PLATE. Shipping weight, 12 pounds.

No. 6857—PLAIN DESIGN COPING MOLD. Complete with filler and dividing plates. Shipping weight, 65 pounds.

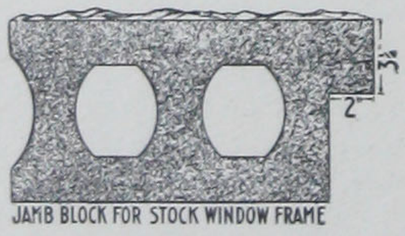
No. 6957—PLAIN END PLATE. Shipping weight, 12 pounds.

Window Jamb Attachment

For Use With Any Panama Machine



Mold Attached



The Finished Block

This attachment is hung over a plain endgate in the machine and enables you to make a block with opening of just the proper size to mold a stock window frame for concrete block buildings. To use this attchment you must have a plain endgate for your machine, so be sure to order one unless you already have it. The offset measures 3¼ inches from the face of the block and is 2 inches wide, as shown. This attachment is made for blocks 8 inches high. Be sure to order the proper size for your block machine.

No. 656—8-Inch "PANAMA" JAMB BLOCK ATTACHMENT for blocks 8 inches thick. Shipping weight, 8 pounds.

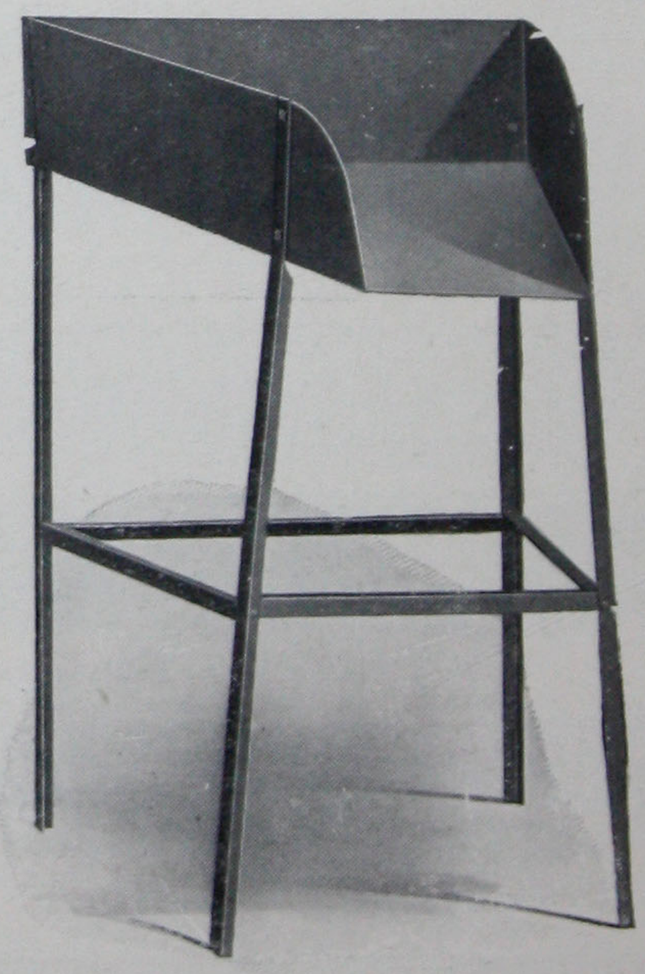
No. 756—9-Inch "PANAMA" JAMB BLOCK ATTACHMENT for blocks, 9 inches thick. Shipping weight, 10 pounds.

No. 856—10-Inch "PANAMA" JAMB BLOCK ATTACHMENT for blocks, 10 inches thick. Shipping weight, 12 pounds.

No. 956—12-Inch "PANAMA" JAMB BLOCK ATTACHMENT for blocks, 12 inches thick. Shipping weight, 15 pounds.

"Panama" Universal Facing Table

For use with any block machine 31 inches high

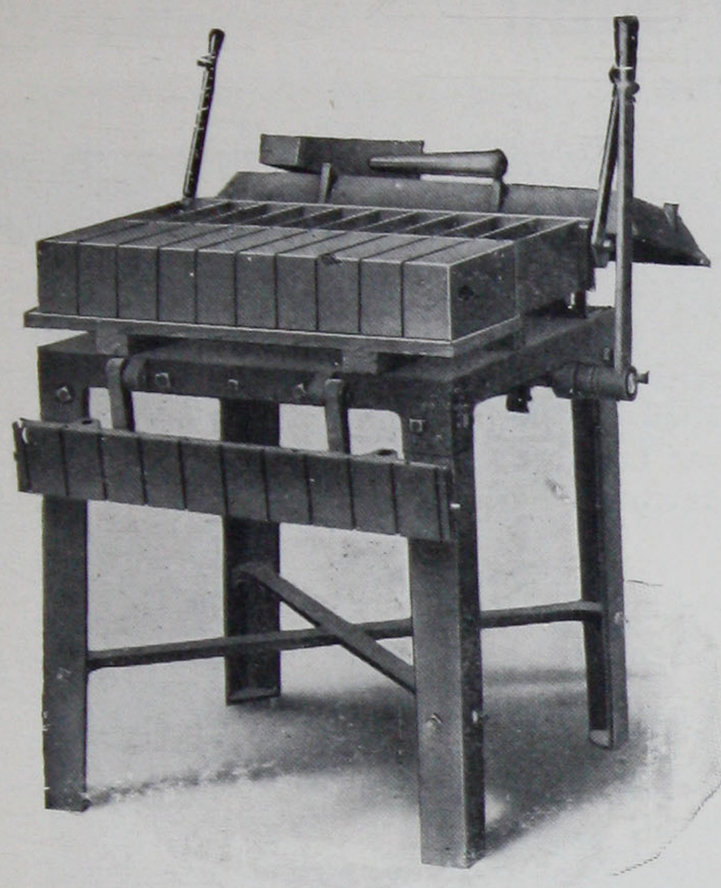


See page 15 for application of table to machine

This is a convenience and time saver which every block maker should have. The hopper measures 28 inches wide at the back, 11 inches wide at front and 7½ inches deep. It is 36 inches high in the back and 32 inches high in the front. Well made of sheet steel, with angle steel legs and steel braces. Holds about 2 cubic feet of facing material, where it can be placed in the block machine without loss of time.

No. 2855—UNIVERSAL FACING TABLE. Shipping weight, 50 pounds

"Panama" 2-Way, 10-Brick Machine



To Make Brick Face Down

The face of the brick is shaped by a planed bed which forms the top plate of the machine. After the brick are tamped and smoothed off the pallet is placed on top of them and two bracket arms swung over the pallet. The side lever is thrown backward, which withdraws the dividing plates, and the framework is turned down in front, as shown in the illustration. The brick are delivered face up on the pallet and the pallet can be conveniently removed from the machine without the use of a special carrier. When making face brick the ornamental face plates are picked loose from the brick as soon as they are turned over on the pallet. One set of ten face plates is all that is required to make a machine full of ornamental face brick at each operation.

The popularity of concrete brick is established. They are as cheap and frequently cheaper than clay brick, depending upon local conditions, and present many definite advantages.

Like other concrete products, concrete brick grow stronger with age, they are absolutely fireproof and can be made in many beautiful ornamental designs. In numerous tests concrete bricks have actually proved more effective in resisting fire than clay bricks.

This machine is called a two-way machine be cause you can make brick either face down or face up, the latter method being almost twice as fast as the former. When brick are made face down the face can be colored or made in any fancy designs. You can also use a better mixture for the facing, making the brick so that it will compare with the highest priced pressed brick. For wall backing and to compete with common clay brick, the brick can be made face up very rapidly.

The bricks produced are better in shape, appearance and quality than common clay brick. Faced concrete brick, that is, brick with a face of richer cement mixture, colored mixture or mixture with special material such as micaspar crystals, crushed granite or crushed marble in it, will cost a little more.

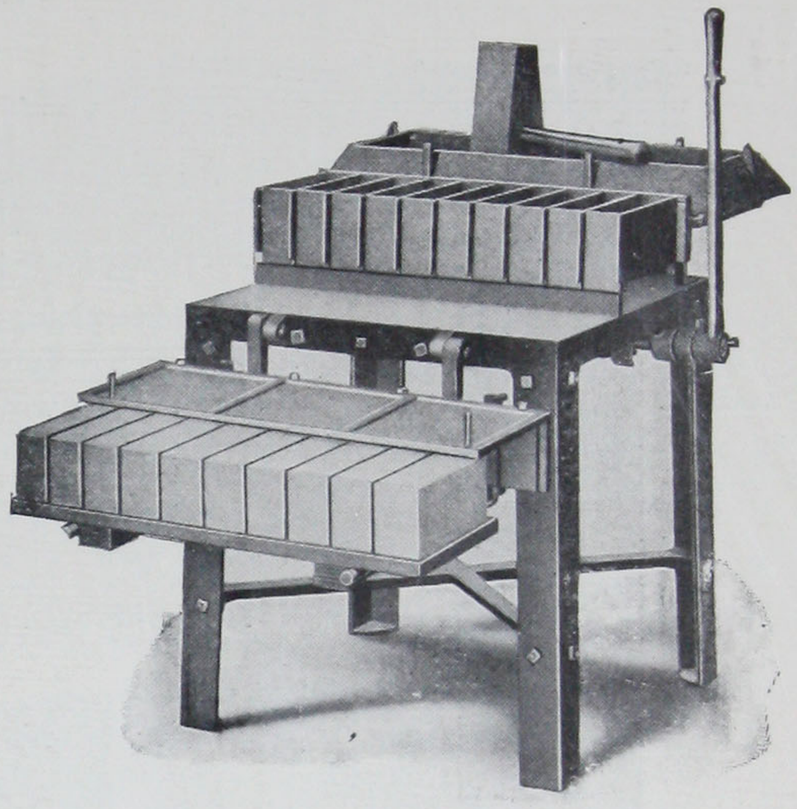
Material Required for Making Concrete Brick

To make 1,000 to 1,200 common concrete brick requires, 2 1-5 barrels cement, 1⅝ yards sand. Labor—two men one-third day each.

The cost of the finished product depends entirely on local conditions. The figures given above will enable you to determine your own costs, and the building material market in your locality will enable you to determine your selling prices.

Well Constructed

This machine is built throughout of the best gray iron castings and open hearth steel plates. The dividing plates are accurately ground and finished and securely attached to a framework which is moved back and forth by a rack or cog bar underneath the machine, where it is impossible to clog it with any concrete material that may be spilled. The side lever engages with two of these rack bars and one movement forward brings the dividing plates in position over the bed of the machine. The dividing plates are firmly locked on the front plate of the machine, so they cannot be forced out of place while tamping the brick. This insures turning out brick that are perfect in every respect. They will all be standard in size, measuring 2¼x4 x8¼ inches. Every brick will be exactly the same and all corners will be square and sharp.



To Make Brick Face Up

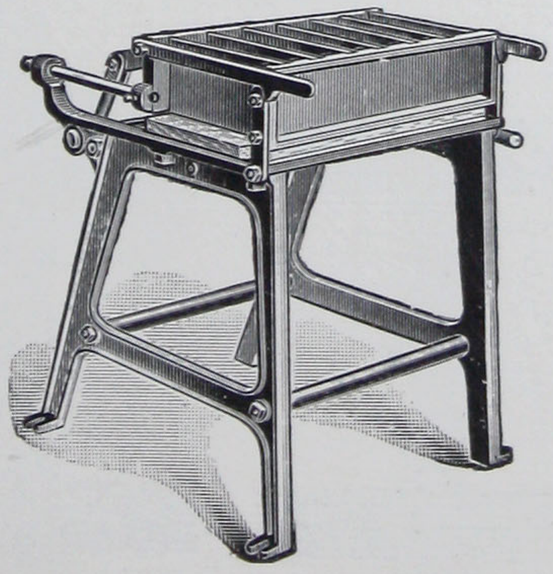
The planed face plate is removed and the pallet is placed on the bed of the machine. The dividing plates are brought forward by one movement of the lever, and the brick are tamped as usual. The dividing plates are then withdrawn by one movement of the lever, the front plate released and the brick then carried from the machine.

No. 9058—"PANAMA" 2-WAY BRICK MACHINE, complete with mallet tamper, steel striker, two sample wood pallets and hopper. Shipping weight, 450 pounds.

"Panama" 6-Brick Machine

A well-built, low-priced machine with which one man can make from 1,500 to 2,000 brick per day. They will all be well formed brick of standard size, 2¼x4x8¼ inches.

Ornamental brick can also be made on this machine but, they must be allowed to rest on the ornamental plate from twelve to twenty-four hours, until hard enough to remove. If you desire to make ornamental brick you must have an ornamental face plate for each brick you intend to make in a day.



The front and back walls are accurately machined castings, while the division plates are of heavy steel accurately ground to size. The dividing plates are securely attached to the back wall and withdrawn through a slotted steel plate. The back wall is drawn back by a simple lever movement and it is guided by steel rods operating in babitted bearings. A latch on each side locks the machine securely when brick are being formed.

No. 6557—"PANAMA" SIX-BRICK MACHINE, furnished complete with one sample wood pallet. Shipping weight, 150 pounds.

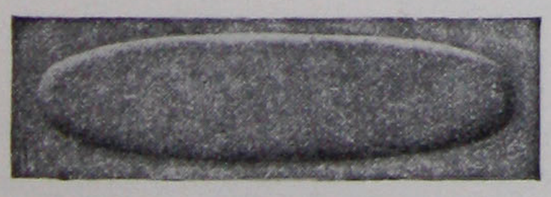
Face Plates for Making Ornamental Brick

Rock Design No. 1

Panel Design. No. 6

Rope Design. No. 15

Black Scroll. No. 22



Oval Face, No. 20

Plates may be furnished for making any of these ornamental faces on the "Panama" Two-Way Brick Machine. One face plate is required for each brick made. A special end and face plate to match is required for making ornamental brick with return ends.

No. 9158—ORNAMENTAL FACE PLATE FOR "PANAMA" TWO-WAY BRICK MACHINE, Shipping weight, 2 pounds.

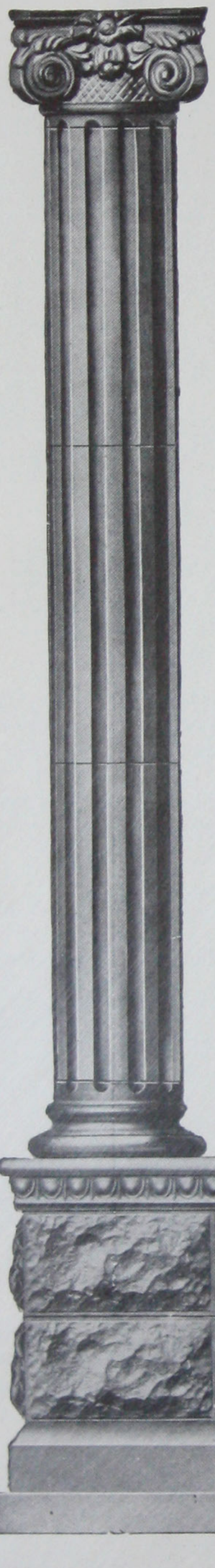
No. 9358—END PLATE FOR MAKING RETURN END CORNER BRICK. Shipping weight, 3 pounds.

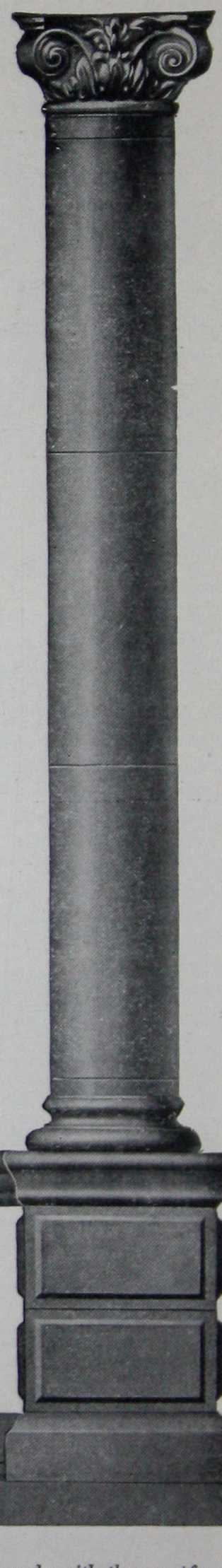
Be sure to state number and design wanted in ordering.

Pyramid Design. No. 21

"Panama" Utility Porch Column Outfit

For Making Columns, Piers and Balustrades





The concrete plant without a good set of porch column molds will miss many opportunities for profit.

By advertising the fact that you are in position to furnish beautiful and practical porch columns and balustrades, in newspapers and among architects and builders, you will soon get several sets installed which will direct other business to you.

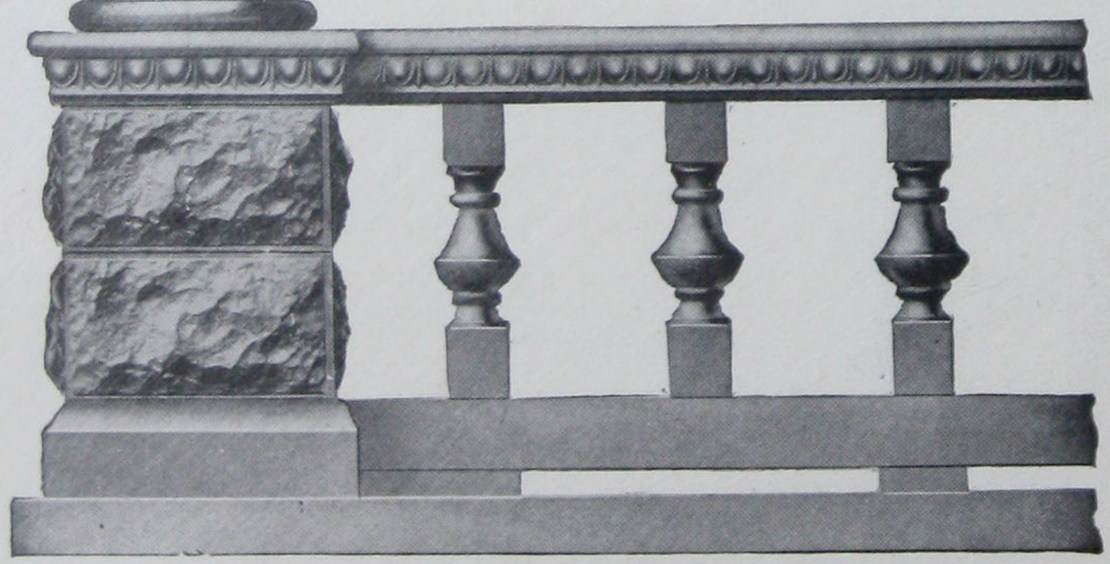
An even more satisfactory method is to build a sample column and balustrade to show to all prospects.

All molds are made of No. 1 Cast Iron, carefully machined and assembled.

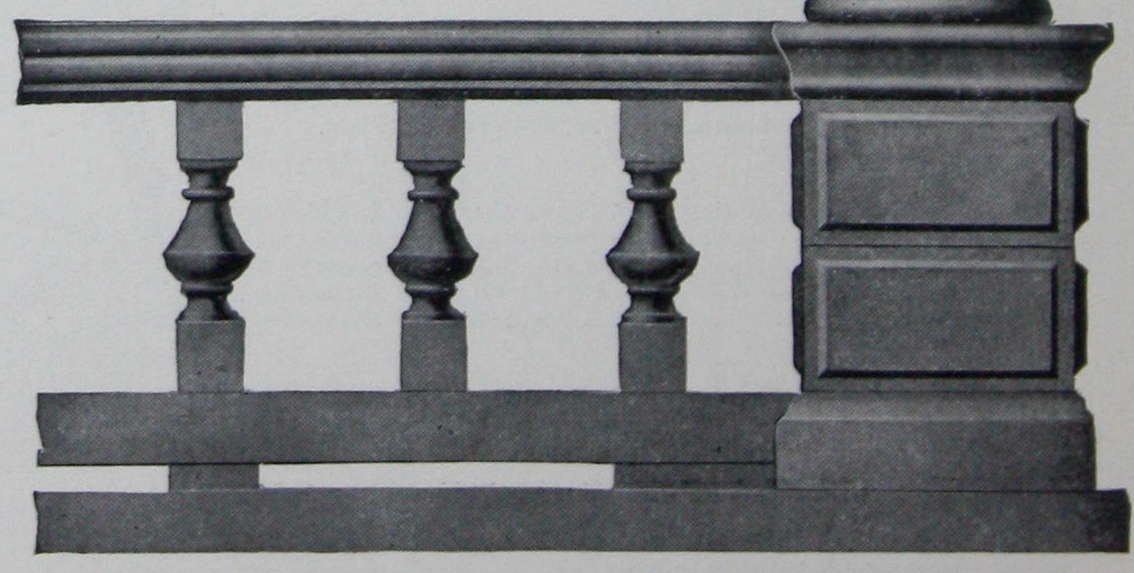
Specifications of Individual Molds

"Panama" Utility Single Molds

10-Inch Size	Description	12-Inch Size
No. A 58	Combination Plain and Fluted Column Mold	N 58
B 58	Baluster Mold Complete	O 58
C 58	Baluster Pallet	P 58
D 58	Ornamental Capital Mold	Q 58
E 58	Column Base Mold	R 58
F 58	Pier Body Mold	S 58
G 58	Pier Cap Mold	T 58
H 58	Pier Base Mold	U 58
I 58	Top Rail Mold	V 58
J 58	Bottom Rail Mold	W58
K 58	Watershed Block Mold	X 58
L 58	Core for forming recess for top rail in pier cap	Y 58
M 58	Core for recess in rails for baluster ends	Z 58



The above shows what a handsome porch can be made with these out-fits, using our Composite Capital Mold, Fluted Column Mold, Rock Face Pier Body and Egg and Dart Cap and Rail.



Another example of porch construction from products made with these outfits, using our Ionic Capital Mold, Plain Column, Panel Pier Body and Plain Pier Cap and Rail.

Specifications of Complete Outfits

Complete "Panama" Utility Balustrade Outfit

No. 3058—"PANAMA" UTILITY PORCH OUTFIT, nine molds, complete for 10-inch column. Shipping weight, 632 pounds.

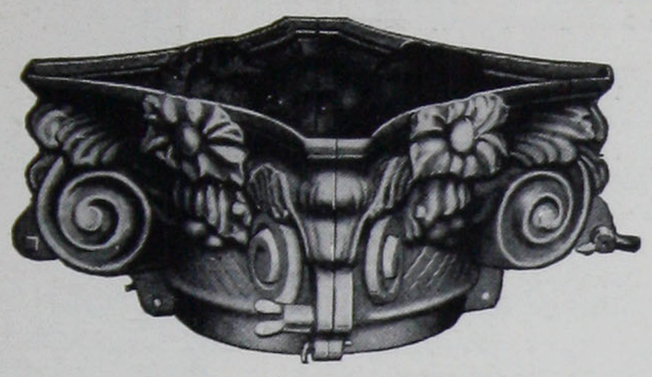
No. 3158—"PANAMA" UTILITY PORCH OUTFIT, nine molds, complete for 12-inch column. Shipping weight, 760 pounds.

No. 5158—COMPLETE BALUSTRADE OUTFIT, consisting of perfectly designed, well fitted molds that make all the needed stones for handsome balustrade or railings around porches, terraces, bridges, lawns, etc. The outfit consists of one top rail mold, either plain or egg and dart, as illustrated (only one furnished; please mention which you want); one bottom rail mold with watershed mold, one core for making recess in top and bottom rails for ends of balusters, one baluster mold and six extra baluster pallets.

"Panama" Utility Porch Molds

No Pallets Required for any of These Molds

For Making Columns

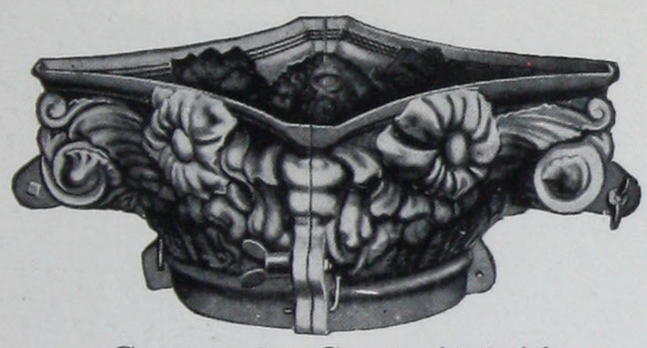


Ionic Capital Mold

Deep cut, handsome design makes a product that has the appearance of cut stone. The deep portions are so placed and designed as to release easily. Matches up perfectly with columns of 10 inches and 12 inches in diameter. A cubic yard of concrete will make twenty-seven capitals for 10-inch column or eighteen for 12-inch column. Be sure to order correct size.

No. 3558—IONIC CAPITAL MOLD FOR 10-Inch COLUMN. Makes cap 9 inches high. Shipping weight, 65 pounds.

No. 4658—IONIC CAPITAL MOLD FOR 12-Inch COLUMN. Makes cap 10 inches high,. Shipping weight, 80 pounds.

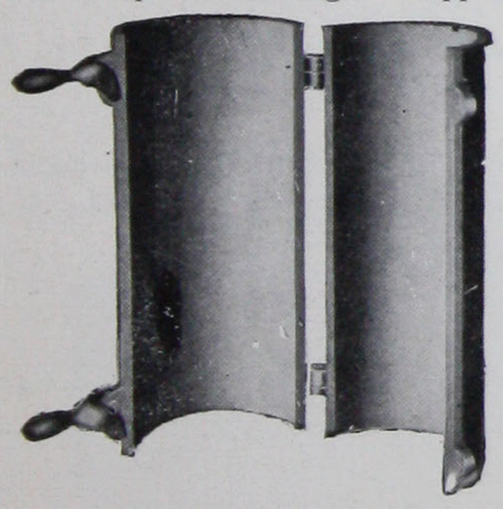


Composite Capital Mold

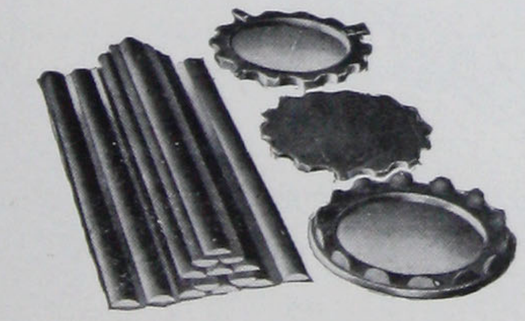
Similar to the Ionic Capital Mold described above. Order either or both of these handsome molds and be in a position to furnish a product for the highest class of building and increase your profits. A cubic yard of concrete will make twenty-seven capitals for 10-inch column or eighteen for 12-inch column. Be sure to order correct size.

No. 3658—COMPOSITE CAPITAL MOLD FOR 10-Inch COLUMN. Makes cap 9 inches high. Shipping weight, 65 pounds.

No. 4658—COMPOSITE CAPITAL MOLD FOR 12-INCH COLUMN. Makes cap 10 inches high. Shipping weight, 80 pounds.



Combination Column Mold



Will make plain or fluted columns, the flutes being obtained by means of separate strips pallet and guide ring, as shown. A stop-off ring is furnished for forming stop-off flutes in column base and cap, as shown in left hand illustration.

A cubic yard of concrete will make 50 feet of 10-inch or 34 feet of 12-inch column.

No. 3558—COMBINATION COLUMN MOLD FOR 10-Inch COLUMN Height, 24 inches. Shipping weight, 125 pounds.

No. 4558—COMBINATION COLUMN MOLD FOR 12-Inch COLUMN. Height 24 inches. Shipping weight, 150 pounds.

Column Base Mold

Forms a round base stone in the popular O. G. curve and should be used under all round columns to give the job a Perfect finish. Can also be used as cap stone. Be sure to order the size you want. A cubic yard of concrete will make sixty-nine 10-inch bases or fifty-one 12-inch bases.

No. 3458—COLUMN BASE MOLD FOR 10-Inch COLUMN; 5¾ inches high and 14 inches in diameter. Shipping weight, 40 pounds.

No. 4458—COLUMN BASE MOLD FOR 12-Inch COLUMN; 6 inches high and 16 inches in diameter. Shipping weight, 60 pounds.

For Making Piers

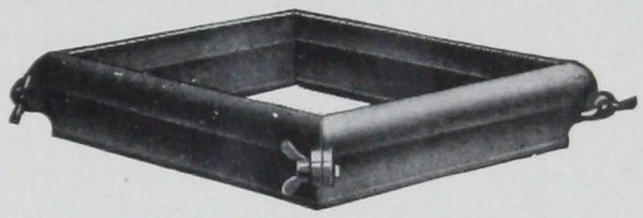
Egg and Dart Pier Cap Mold

This mold makes a square stone, used as a cap on a square porch pier or column. Be sure to state correct number.

No. 1658—EGG AND DART PIER CAP MOLD. 13 inches square at bottom, 15 inches square at top, 4 inches high. For 12-inch pier. Makes eighty-one to the cubic yard of concrete. Shipping weight, 30 pounds.

No. 3958—EGG AND DART PIER CAP MOLD. 15 inches square at bottom, 17 inches square at top, 4 inches high. For 14-inch pier in connection with round column 10 inches in diameter. Makes forty-six to the cubic yard of concrete. Shipping weight, 40 pounds.

No. 4958—EGG AND DART PIER CAP MOLD. 17 inches square at bottom, 19 inches square at top, 4 inches high. For 16-inch pier in connection with round column 12 inches in diameter. Makes thirty-six to the cubic yard of concrete. Shipping weight 50 pounds.



Plain Pier Cap Mold

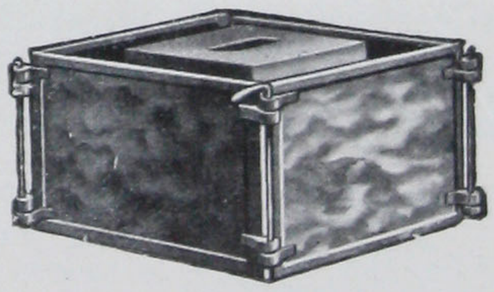
This mold will make about the same number of stones to the yard of concrete as Egg and Dart molds above. Be sure to state correct number.

No. 1658—PLAIN PIER CAP MOLD, 13 inches square at bottom, 15 inches square at top, 4 inches high. To be used on pier 12 inches square. Shipping weight, 30 pounds.

No. 3958—PLAIN PIER CAP MOLD, 15 inches square at bottom, 17 inches square at top, 4 inches high. For 14-inch pier in connection with round column 10 inches in diameter. Shipping weight, 40 pounds.

No. 4958—PLAIN PIER CAP MOLD, 17 inches square at bottom, 19 inches square at top, 4 inches high. For 16-inch pier in connection with round column 12 inches in diameter. Shipping weight, 50 pounds.

Square Pier Mold



This mold is furnished in the following designs: Rock, plain, panel, tooled edge rock, tooled edge bushhammer or cobblestone. Be sure to state correct number. Rock design furnished unless otherwise specified.

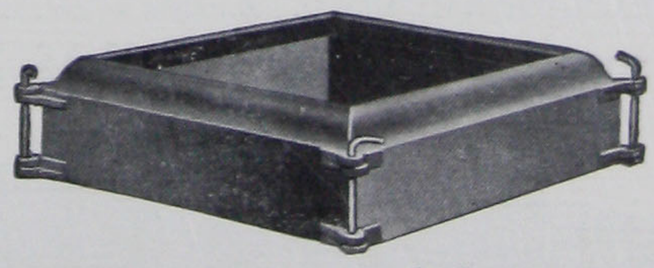
No. 1758—PIER MOLD, 10 inches square 7¾ inches high, with core 6 inches square. Makes ninety-one to the cubic yard of concrete. State design wanted. Shipping weight, 50 pounds.

No. 3358—PIER MOLD, 12 inches square, 7¾ inches high, with core 6 inches square. Makes fifty-four to the cubic yard of concrete. State design wanted. Shipping weight 60 pounds.

No. 3858—PIER MOLD, used with 10-inch round column, 14 inches square, 7¾ inches high. With core 8 inches square. Makes thirty-six to the cubic yard of concrete. State design wanted. Shipping weight, 75 pounds.

No. 4858—PIER MOLD, used with 12-inch column, 16 inches square, 7¾ inches high, with core 8 inches square. Makes thirty-one to the cubic yard of concrete. State design wanted. Shipping weight, 100 pounds.

Pier Base Mold



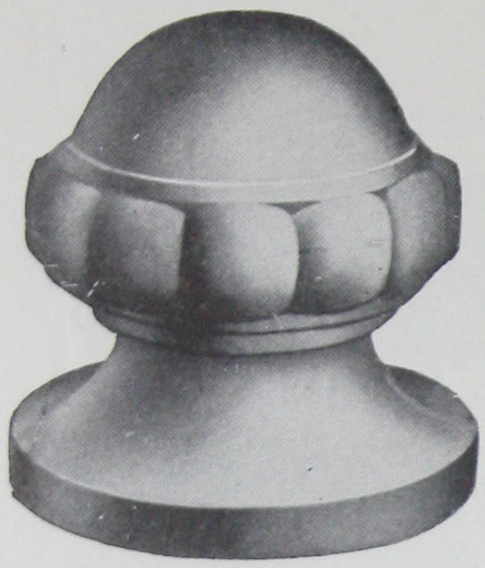
Makes a square base stone in the popular O. G. pattern, on which to build pier, gate posts and square columns. Be sure to state correct number.

No. 4058—PIER BASE MOLD to match pier blocks 12 inches square. Measures 12 inches square at the top, 15 inches square at the bottom and 5¼ inches high. Makes forty-one to the cubic yard of concrete. Shipping weight, 40 pounds.

No. 3758—PIER BASE MOLD to match pier blocks 14 inches square. Measures 14 inches square at the top, 17 inches square at the bottom and 5¼ inches high. Makes thirty-two to the cubic yard of concrete. Shipping weight, 45 pounds.

No. 4758—PIER BASE MOLD to match pier blocks 16 inches square. Measures 16 inches square at the top, 19 inches square at the bottom and 5¼ inches high. Makes twenty-six to the cubic yard of concrete. Shipping weight, 65 pounds.

"Panama" Economy Ball Molds



Ball made in our Ornamental Ball Mold

Well Fitted Designs that Release Easily without Damaging Product

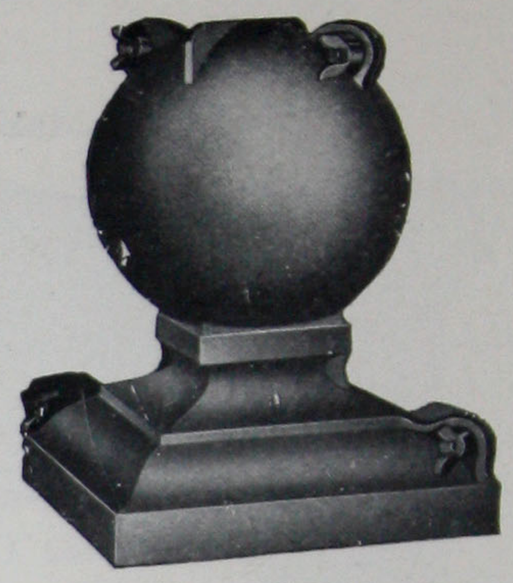
No. 7857—"PANAMA" ORNAMENTAL BALL MOLD to match 10-inch column Base, 12 inches in diameter; height, 12 inches; ball 9½ inches in diameter. Shipping weight, 50 pounds.

No. 7957—"PANAMA" ORNAMENTAL BALL MOLD to match 12-inch column Base, 14 inches in diameter; height, 14 inches; ball, 11 inches in diameter. Shipping weight, 65 pounds.

No. 9757—"PANAMA" PLAIN BALL MOLD to match 10-inch column. Ball, 6 inches in diameter; base, 6 inches square; total height, 12 inches. Shipping weight, about 40 pounds.

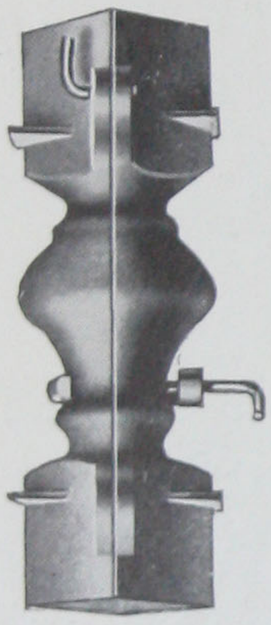
No. 9857—"PANAMA" PLAIN BALL MOLD to match 10-inch column. Ball, 10 inches in diameter; base, 12 inches square; total height, 16 inches. Shipping weight about 50 pounds.

No. 9957—"PANAMA" PLAIN BALL MOLD to match 12-inch column. Ball, 12 inches in diameter; base, 14 inches square; total height, 18 inches. Shipping weight, about 65 pounds.



Plain Ball Mold

"Panama" Baluster Mold



Makes a very artistic baluster with round bell shape shaft and square ends. Can be used for any purpose where a baluster is needed. Baluster must remain in half the mold, called a pallet, until hard enough to remove. 3½ inches square, 5¼ inches diameter at the widest part round bell, 17 inches high. A cubic yard of concrete will make 225 balusters. Shipping weight, 25 pounds.

No. 5558—BALUSTER MOLD. Line pallet needed for every baluster you make in a day.

No. 5758—BALUSTER PALLET. Shipping weight, 13 pounds.

"Panama" Egg and Dart Top Rail Mold

Makes an attractive and beautiful rail. Used in porch work, ornamental fence and baluster rails for bridges, terraces, lawns, etc. Illustration of porch column on page 26 shows appearance of product of this mold. 4 inches high, 5¾ inches wide at top, 4 inches wide at bottom, 24 inches long. A cubic yard of concrete will make 200 feet of this rail.

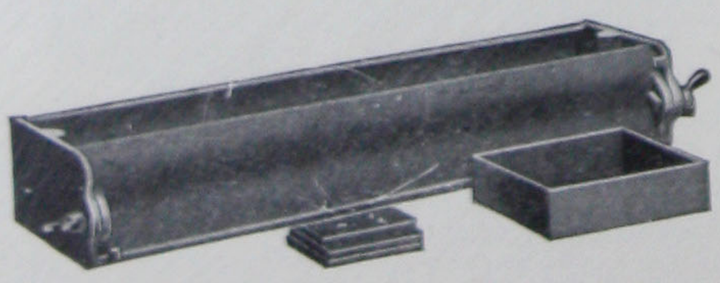
No. 5258—EGG AND DART TOP RAIL MOLD. Shipping weight, 40 pounds.

"Panama" Plain Top Rail Mold

This mold is same size as the egg and dart mold described above. Porch rail to the right in large illustration on page 26 shows the finished product. A cubic yard of concrete will make 200 feet of this rail.

No. 5358—PLAIN TOP RAIL MOLD. Shipping weight, 40 pounds.

"Panama" Bottom Rail Mold



Makes bottom rail used in porch work and balustrades. Matches perfectly the top rail and the baluster described on this page. Mold is well fitted together and releases easily from the product, which is left where made till hard enough to move. With each mold we furnish a small iron mold for making square blocks on which to set the bottom rail so water will drain under them, as shown in the large porch illustration on page 26. Makes stone 4 inches high, 6 inches wide and 24 inches long. A cubic yard of concrete will make 162 feet of this rail.

No. 5458—BOTTOM RAIL MOLD. Shipping weight, 40 pounds.

"Panama" Jardiniere or Flower Pot Molds

Fleur de Lis Design

Lion Head Design

These new and pleasing pots will find a ready sale for everyone loves flowers. They are easy and inexpensive to make, and all at a handsome profit. Progressive manufacturers also sell them to stores in quantities.

Made of grey iron well fitted and held together by simple clamp. Two designs and five sizes available.

By the use of white sand, coloring matter and various kinds of facing material, very pleasing results are obtained. The use of fine facing material in the Lion head brings out all the details.

No. 8758—"PANAMA" JARDINIERE MOLD, fleur de lis design, complete with core and tamper. Size, 4x4 inches. Shipping weight, 20 pounds.

No. 8858—"PANAMA" JARDINIERE MOLD, fleur de lis design, complete with core and tamper. Size, 6x6 inches. Shipping weight, 25 pounds.

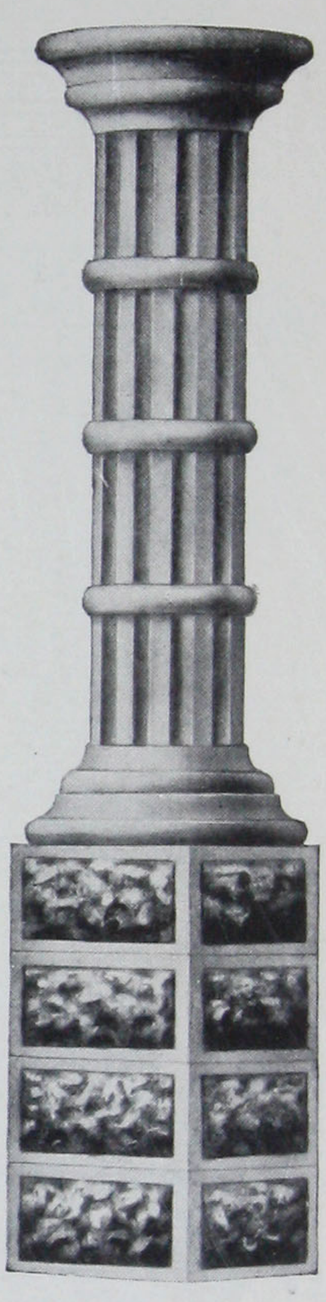
No. 8958—"PANAMA" JARDINIERE MOLD, lion head design, complete with core and tamper. Size, 8x8 inches. Shipping weight, 50 pounds.

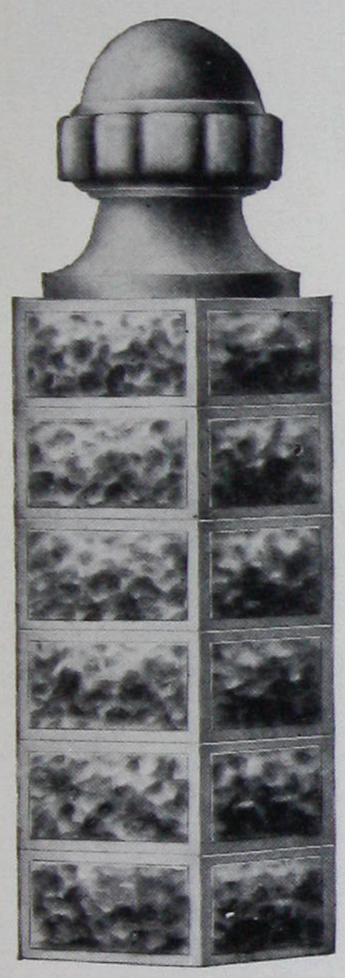
No. 8558—"PANAMA" JARDINIERE MOLD, lion head design, complete with core and tamper. Size, 8x8x16 inches. Shipping weight, 70 pounds.

No. 8658—"PANAMA" JARDINIERE MOLD, lion head design, complete with core and tamper. Size, 8x8x24 inches. Shipping weight, 90 pounds.

"Panama" Economy Mold

For Making Porch Columns, Gate Posts and Piers





A strictly high grade but simple set of molds, sold at a price never before equalled. They make porch columns, gate posts, piers and other ornamental work, which can be sold at a larger profit than other concrete products.

All these molds are made of No. 1 gray iron accurately fitted and machined. We guarantee to replace, free of charge, any part which gives out due to defects in material or workmanship.

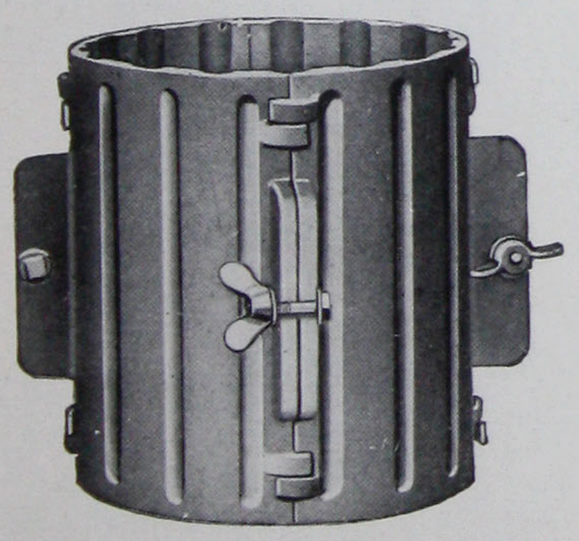
Outfits consist of the following: 1 column mold; (State whether plain or fluted); 1 cap and base mold; 1 ring mold; 1 pier mold; (State design wanted, whether plain or rock-face); 1 ball mold; (State whether plain or ornamental).

Any of above pieces can be bought separately, but a saving is effected in buying the complete outfit.

No. 7657—COMPLETE SET OF 5 "PANAMA" ECONOMY PORCH COLUMN AND PIER MOLDS for 10-Inch column. Shipping weight. 200 pounds.

No. 7757—COMPLETE SET OF 5 "PANAMA" ECONOMY PORCH COLUMN AND PIER MOLDS for 12-Inch column. Shipping weight. 375 pounds.

"Panama" Economy Column Mold



Well made of accurately fitted castings that can be assembled or taken apart easily and quickly. Furnished in two sizes as listed, and in either fluted or plain design. Mention which you want. Fluted design furnished unless otherwise ordered.

No. 7057—"PANAMA" ECONOMY COLUMN MOLD, 10 inches in diameter, 12 inches high. State whether plain or fluted is desired. Shipping weight, 45 pounds.

No. 7157—"PANAMA" ECONOMY COLUMN MOLD, 12 inches in diameter, 12 inches high. State whether plain or fluted is desired. Shipping weight, 65 pounds.

"Panama" Economy Ring Mold

Makes ring for between column sections as illustrated above, adding to the beauty of the column. Also used as supporting slab for small vases and other ornamental work.

No. 7357—"PANAMA" ECONOMY RING MOLD to match 10-Inch column. Shipping weight, 20 pounds.

No. 7257—"PANAMA" ECONOMY RING MOLD to match 12-Inch column. Shipping weight, 30 pounds.

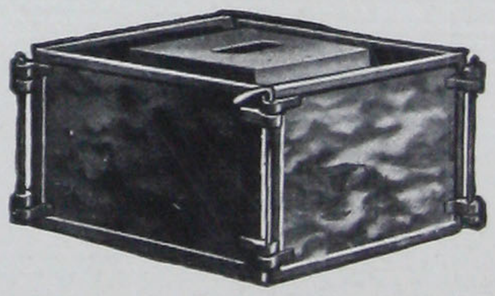
"Panama" Economy Cap and Base Mold

Forms cap or base of column as illustrated above Can also be used under small vases and other ornaments.

No. 3458—"PANAMA" ECONOMY COLUMN CAP AND BASE MOLD for 10-inch column. Shipping weight, 40 pounds.

No. 4458—"PANAMA" ECONOMY COLUMN CAP AND BASE MOLD for 12-Inch column. Shipping weight, 50 pounds.

"Panama" Economy Pier Mold



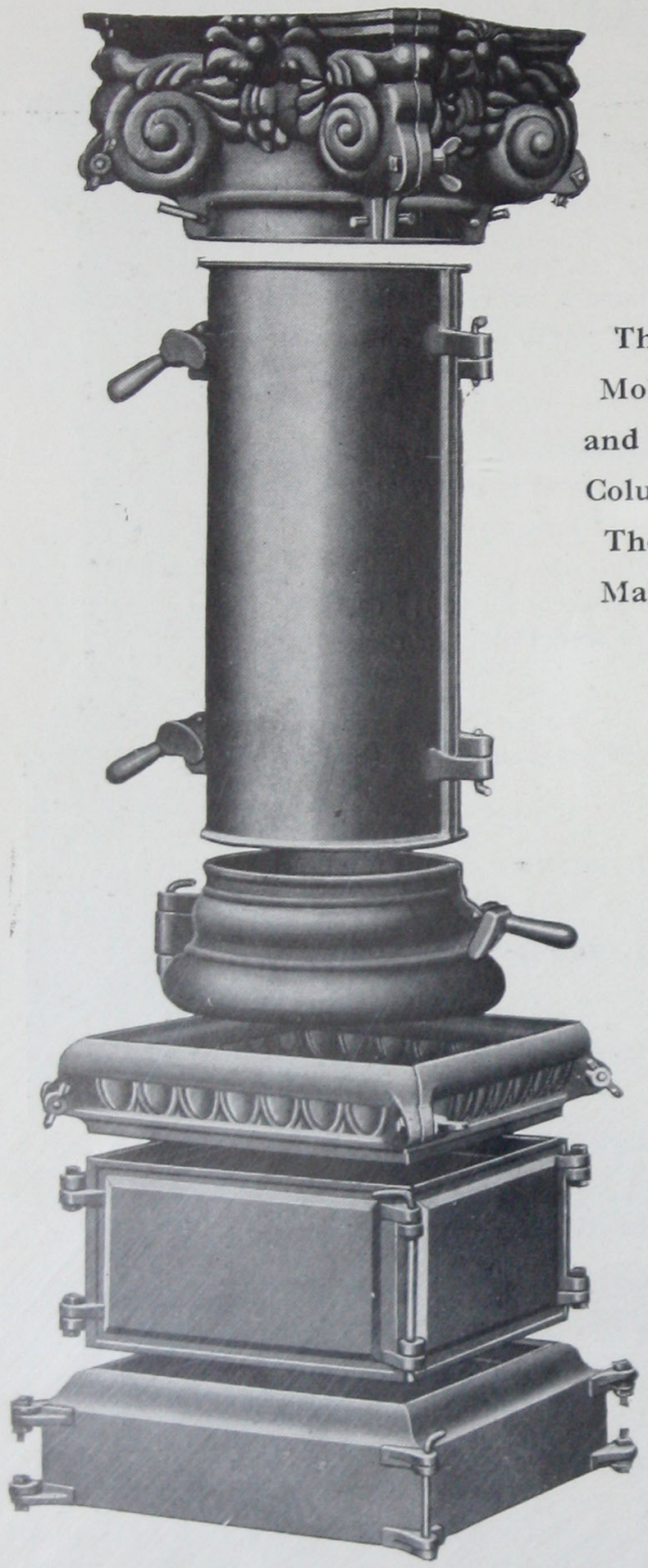
For making square blocks used for porches, foundation piers, gate posts, etc. Three corners are bolted together with hinge joints and one corner pinned as illustrated. To release mold from stone pull out pin and open away from stone. Furnished in the following: Rock, plain, panel, tooled, tooled edge rock, tooled edge bushhammer or cobblestone. Be sure to order design you want. Rock design furnished unless otherwise specified. Furnished complete with core.

No. 1758—"PANAMA" ECONOMY PIER MOLD, 10 inches square, 7¾ inches high, with core 6 inches square. State design wanted. Shipping weight, 50 pounds.

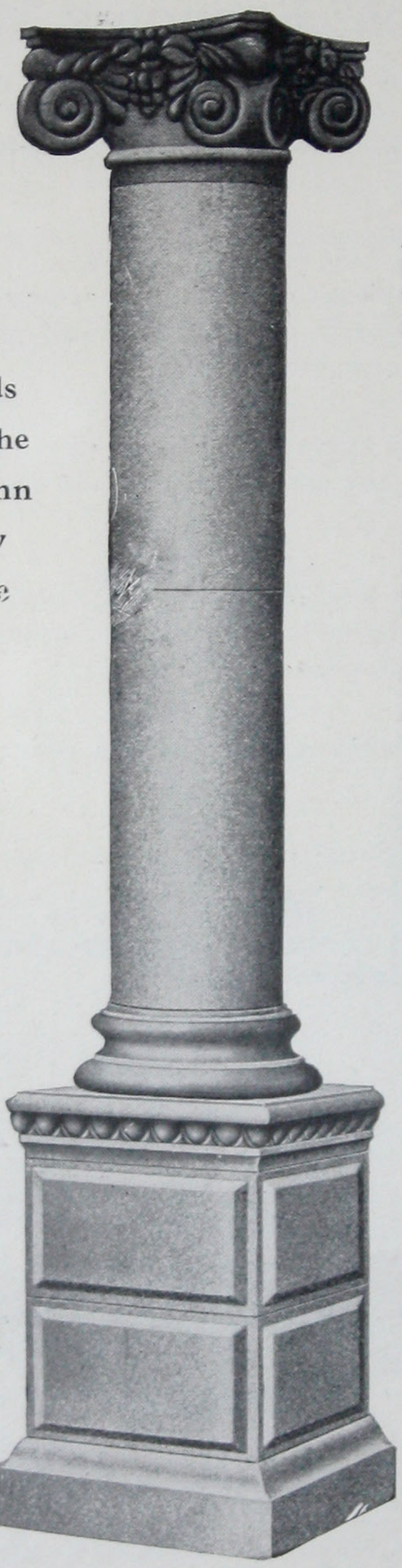
No. 3358—"PANAMA" ECONOMY PIER MOLD, 12 inches square, 7¾ inches high. State design wanted. Shipping weight, 60 pounds.

No. 3858—"PANAMA" ECONOMY PIER MOLD, used with 10-inch round column, 14 inches square, 7¾ inches high. State design wanted. Shipping weight, 75 pounds.

No. 4858—"PANAMA" ECONOMY PIER MOLD, used with 12-inch round column, 16 inches square, 7¾ inches high. State design wanted. Shipping weight, 100 pounds.



The Molds and the Column They Make



The Molds *The Column*

"Panama" Utility Porch Column Outfit

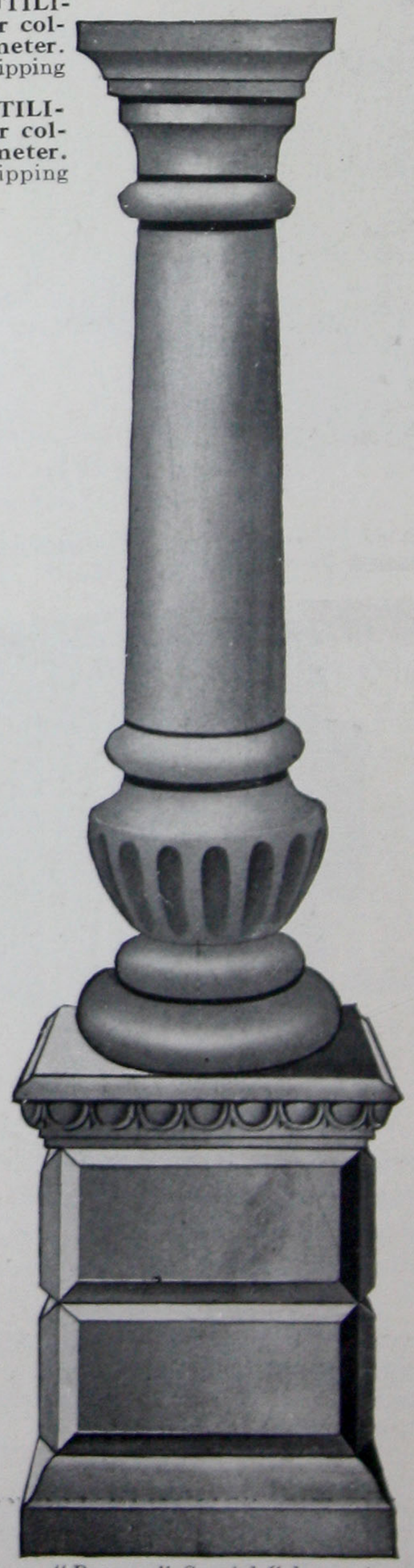
A beautiful column produced by using six of our "Panama" Utility Molds as illustrated on page 27. All molds are made of high grade castings properly fitted and are guaranteed to be perfect in material and workmanship. Each outfit consists of the following molds:

One Ionic Capital Mold.
One Combination Plain and Fluted Column Mold.
One Column Base Mold.
One Pier Cap Mold. Egg and Dart design.
One Pier Body Mold. Panel Design.
One Pier Base Mold.

Each mold is of proper size to match column and is as described on page 27. If design other than as specified above is wanted, be sure to mention design wanted when you write your order.

No. 1958—"PANAMA" UTILITY COLUMN OUTFIT for columns 10 inches in diameter. Complete as described. Shipping weight, 375 pounds.

No. 2058—"PANAMA" UTILITY COLUMN OUTFIT for columns 12 inches in diameter. Complete as described. Shipping weight, 525 pounds.



"Panama" Special Column

"Panama" Special Porch Column Outfits

Produces exceptionally beautiful and high class columns that will make a very unusual porch when used with our baluster and railing molds on page 28. It will also add considerably to any porch whether of brick, wood or stone.

Being built up of several parts, this column is much easier to assemble than if made in one piece. The joints can be easily concealed, giving an appearance of being one piece.

By using a wood core in the urn part of column you can make beautiful small vases or flower pots. Various combinations of forms can also be used for making gate posts, pedestals, etc.

The complete column and pedestal, consists of ten molds 3 for making the pedestal and 7 for making the column. Either set, or complete assortment can be purchased.

No. 4158—"PANAMA" SPECIAL OUTFIT FOR MAKING COLUMN ONLY. Consists of seven molds, as follows: Column cap, 13¾ inches square, 4¼ inches high; O. G ring, 10½ inches in diameter at top, 8½ inches in diameter at bottom, 4½ inches high; Top Ring, 10½ inches in diameter, 2½ inches high; Main Shaft, 8½ inches in diameter at top, 10 inches in diameter at bottom, 29 inches high; Lower Ring Mold, above urn, 12 inches in diameter; 2½ inches high; Urn, 13¾ inches in diameter at center, approximately 10 inches in diameter at top and bottom; Round Base, 14 inches in diameter, 3¾ inches high, Height, entire column laid up with ¼-inch mortar joints, 60 inches. Shipping weight, 200 pounds.

No. 4258—"PANAMA" SPECIAL OUTFIT FOR MAKING PEDESTAL. Consists of three molds as follows: Pedestal Cap, 16 inches square at bottom, 18 inches square at top; 4 inches high; (egg and dart design as illustrated or plain). **State which is wanted.** Pedestal Body Mold, 16 inches square, 7¾ inches high, (plain design as illustrated, or tooled edge rock, tooled edge bush hammer, all tooled or cobblestone). **State which is wanted.** Base Mold, 16 inches square at top, 18 inches square at bottom, 5½ inches high. Shipping weight, 225 pounds.

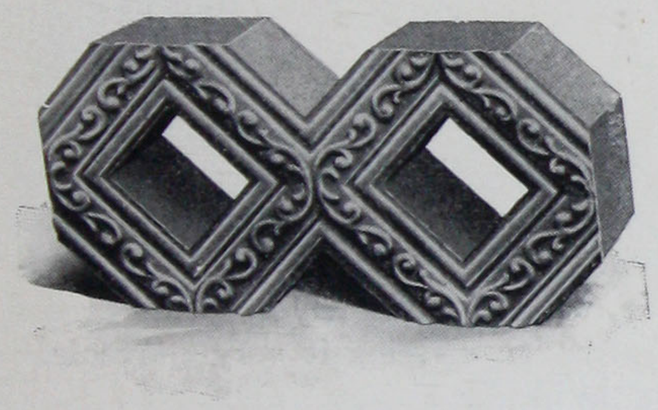
No. 4358—"PANAMA" SPECIAL COMPLETE COLUMN AND PEDESTAL OUTFIT. Consists of all molds furnished with outfits No. 4258 and 4158. Shipping weight, 450 pounds.

All measurements are exact, no allowance being made for mortar joints, except as mentioned.

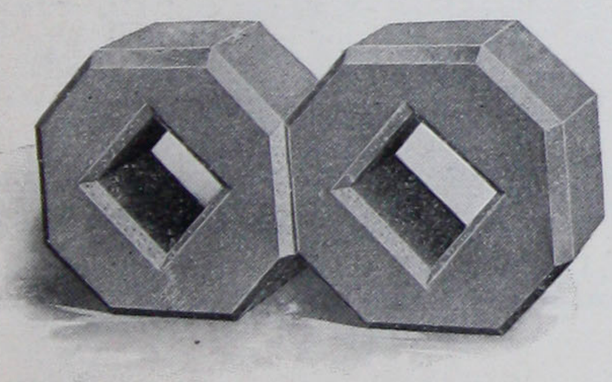
"Panama" Lattice Block Mold

Blocks It Makes

Block as made in This Mold

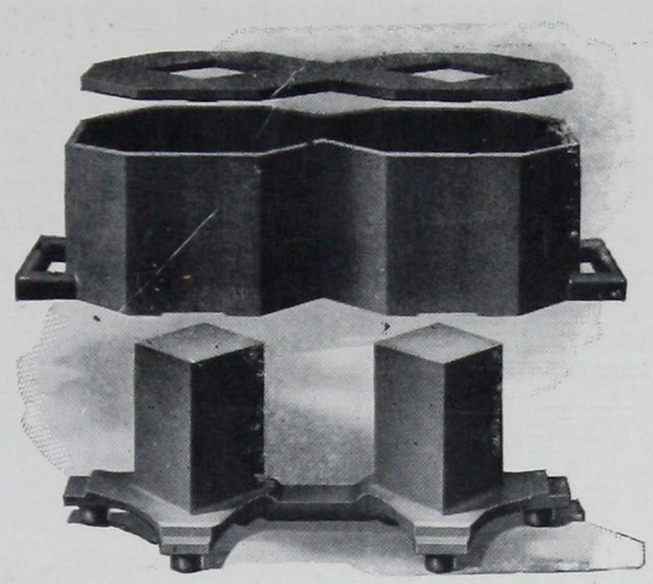


Block made with Scroll Design Ornamental Pallet



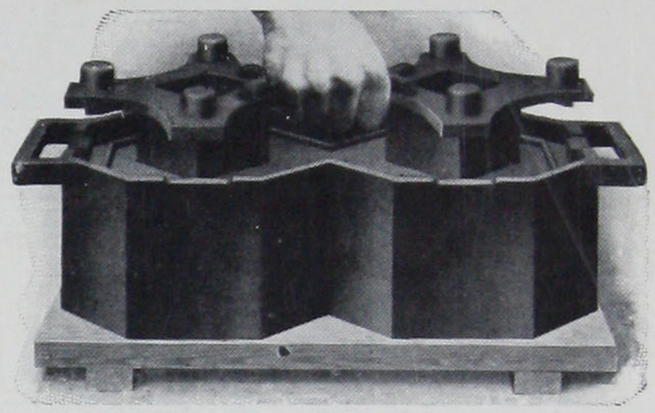
Block made with Panel Design Ornamental Pallet

Block made with Rock Design Ornamental



The Panama Lattice Block Mold complete with parts arranged in regular order to prepare mold for making a block. The pallet is dropped down on the cores and then outside mold placed on the offsets on cores and it is ready to be filled. Block is made face down

How It Operates



The mold turned over on a wood pallet and core being withdrawn. Note how iron pallet now forms a stripping plate which prevents damage to stone while pulling cores and outer casing. If desired, block can be turned over on any smooth surface, the wood pallet being unnecessary unless you wish to carry finished blocks away from mold.

"Panama" Lattice Block Mold

Makes ornamental blocks suitable for many classes of work, such as enclosing the space under a porch, making porch or garden fences, cemetery fence, etc.

By placing small blocks of wood under the pallet you can raise it up into the outside mold to make blocks 2 or 3 inches thick, as desired, instead of the regular width of 5 inches.

The above illustrations clearly show this outfit and method of operation.

Extra ornamental pallets may be obtained in the following designs: Rock design, panel design and scroll design. One of each kind is required, which is removed as soon as block is turned over and mold withdrawn.

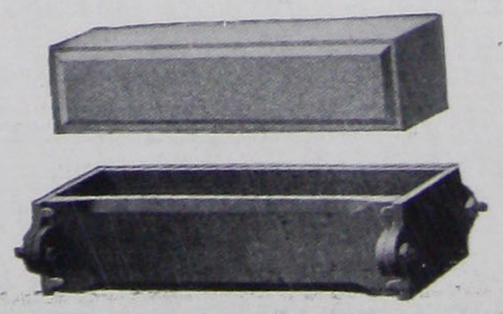
No. 9257—"PANAMA" LATTICE BLOCK MOLD, complete with outside mold, cores, plain iron pallet, sample wood pallet and tamper. Shipping weight, 60 pounds.

No. 9357—ORNAMENTAL PALLET OR STRIPPING PLATE for lattice block mold. Shipping weight, 10 pounds.

"Panama" Simplex Lattice Block Mold

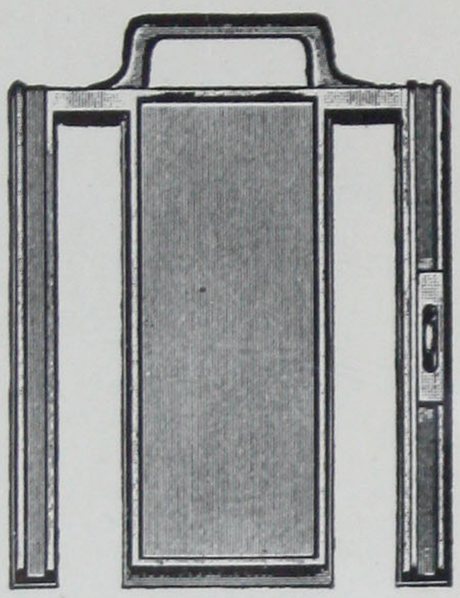
A very simple mold for making blocks 4x5x16 inches, suitable for lattice or porch work. Mold is made up of four parts held together with thumb-screws. Can be furnished in panel design, as shown, plain design, or rock design. Please state which you want when you order, otherwise we send panel design.

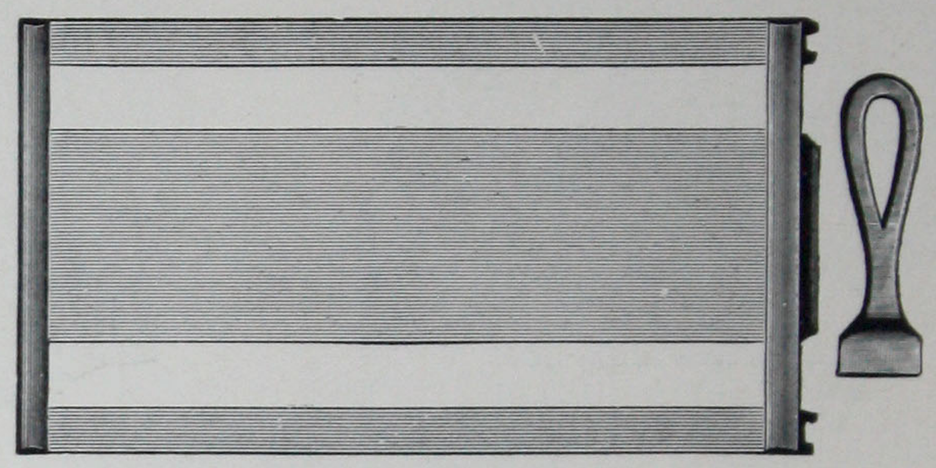
No. 7256—"PANAMA" LATTICE BLOCK MOLD. Shipping weight, 30 pounds.



"Panama" Mortar Gauges

For Laying Concrete Blocks, Brick, or Porch Columns





With these gauges the amateur can do a perfect job and the expert work faster, easier and better than by any other method.

The face of the wall is kept clean and a groove of even width and depth is maintained between the blocks, forming a secure anchor for the beading or tuckpointing. Two gauges are furnished, one for the horizontal bed of mortar and one for placing mortar on the ends of the block.

The horizontal gauge has a flange on one side which is placed against the side of the block. The openings are filled with mortar and then struck off with a straight edge trowel and the gauge removed. This leaves an even line of mortar on the front and back of the block exactly ¼ inch thick, ready for the placing of the block. The end gauge is used in much the same manner, flange being pressed up against the side of the block, the mortar spread in the two openings of the gauge and struck off. The tool is removed, leaving exactly ¼ inch of mortar on the ends of the block ready for the next block to be placed up against it. End gauge is also fitted with level glass.

Made of aluminum and are very light and easily handled, yet strong enough to stand everyday continual use. The tools are carefully finished and sized. With each set of block tools we include a reversible handle, which is instantly attached or detached from the horizontal gauge, making it very convenient to place on or take off from the block.

Each set consists of one horizontal gauge, one vertical gauge and one reversible handle.

No. 9456—"PANAMA" MOTAR GAUGE, for laying blocks 8 inches thick. Shipping weight, 6 pounds.

No. 9556—"PANAMA" MORTAR GAUGE, for laying blocks 9 inches thick. Shipping weight, 7 pounds.

No. 9656—"PANAMA" MORTAR GAUGE, for laying blocks 10 inches thick. Shipping weight, 8 pounds.

No. 9756—"PANAMA" MORTAR GAUGE, for laying blocks 12 inches thick. Shipping weight, 10 pounds.

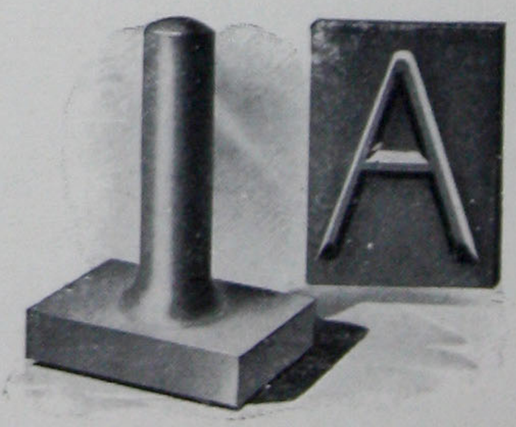
"Panama" Tampers

Well made of No. 1 gray iron castings, nicely finished and securely mounted on hardwood handles.

No. 7656—"PANAMA" REGULAR DOUBLE END TAMPER. Blunt end measures 2⅞ inches wide and ½ inch thick; large end measures 2½ inches wide and 4 inches long. Shipping weight, 5 pounds.

No. 7756—"PANAMA" EXTRA HEAVY DOUBLE END TAMPER. Blunt end measures 4 inches wide and 1½ inches thick; large end measures 3⅞ inches wide and 4½ inches long. Shipping weight, 9 pounds.

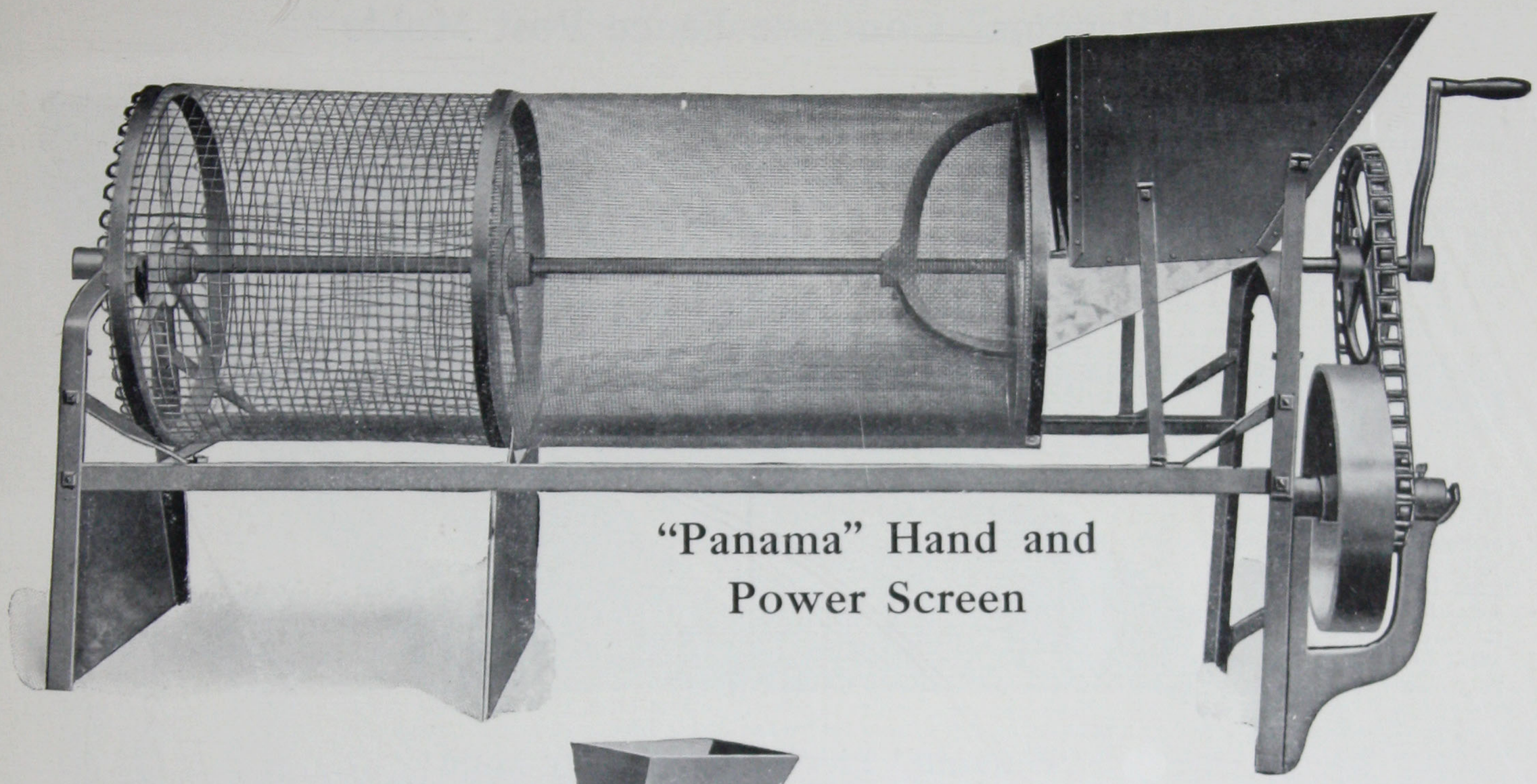
"Panama" Stamps for Marking Blocks



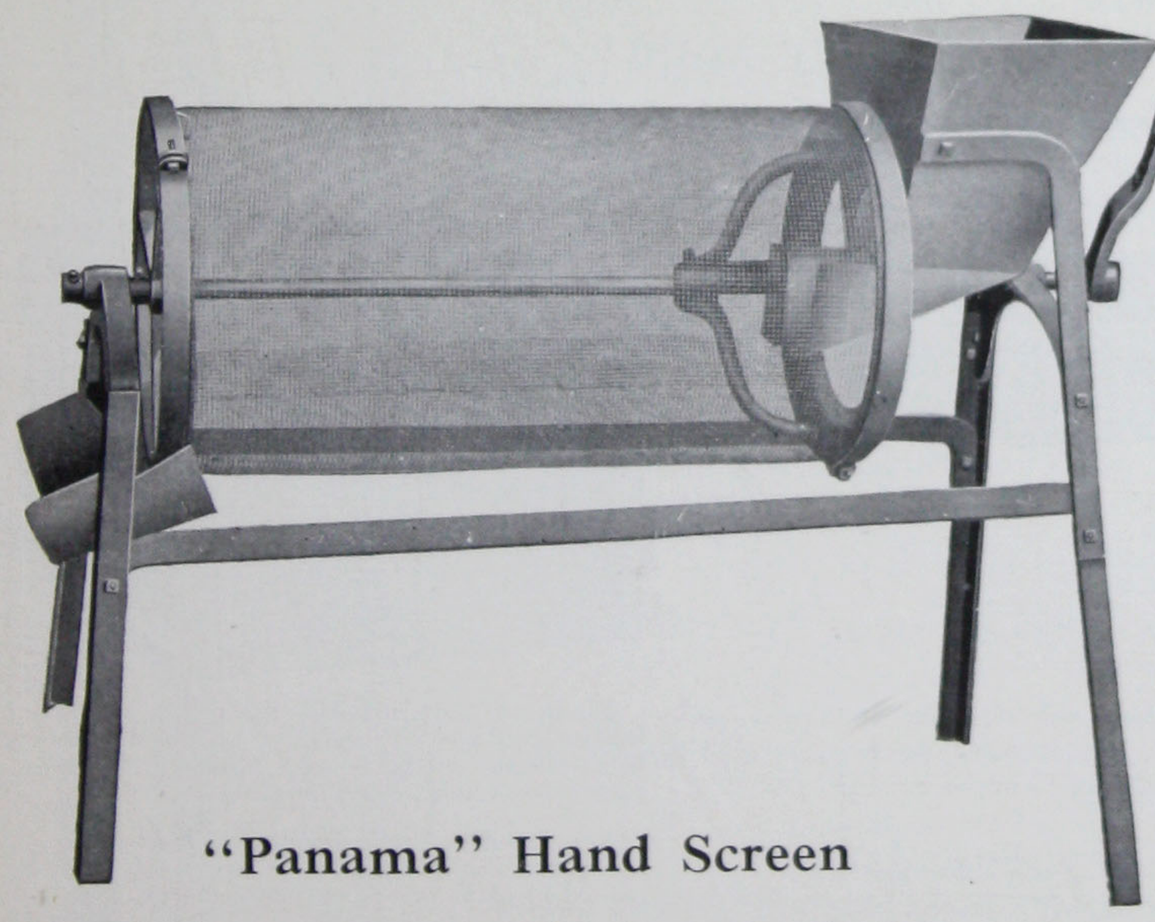
These stamps enable block makers to comply with the law in some localities requiring such marking. It is good advertising. in any event to mark your blocks and draw business in this way

Letters are 3 inches high, of plain block type, designed so they will mark the concrete and withdraw easily and leave a perfect impression. Can be furnished in stamps of single letters, as shown, or will make one stamp of several letters. Mention which is wanted when ordering, otherwise will furnish all on one stamp. Letters are reversed so they will show properly when impressed in the block.

No. 758—"PANAMA" BLOCK MARKING STAMP. Weight, single letter stamp, 4 pounds. Additional letters will add about 2 pounds per letter.



"Panama" Hand and Power Screen



"Panama" Hand Screen

A simple but practical screen for those who simply want to separate the sand from the gravel. Will screen all the sand and gravel that two men can shovel into it with another man at the crank. Has a cold rolled steel center shaft, a substantial steel hopper and steel frame braced with iron crosspieces. Although light in weight, this is a strong durable machine that will pay for itself in a short time. The screening drum is of a very practical size, measuring 3 feet long and 18 inches in diameter.

The wire screening used has a ¼ inch mesh and is a very heavy grade and is galvanized after weaving.

It is clamped in place with steel bands, so it can be easily removed and replaced with another size if desired, All material that passes through the screen is considered sand. A screen with meshes smaller than ¼ inch will work nicely on dry material, but wet material will clog it. This machine is 4 feet long, 24 inches wide at the bottom and 44 inches high at the hopper end. Two men can easily lift it and although small and light enough to be moved about readily, it has big capacity and will give entirely satisfactory service in every way.

No. 1261—"PANAMA" HAND OPERATED SAND SCREEN. Shipping weight, 185 pounds.

Every concrete plant should have a good screen to screen bank run of sand and gravel and remix in proper proportions. This is the only way to maintain a product of uniform high quality.

The above is a rotary screen of large capacity representing the latest improvements in the line of screens.

It is sufficiently light to be transported from job to job, yet is so strongly built as to be adapted for continuous hard use in a gravel pit or concrete plant.

Can be turned by power or hand. One man can screen all the material that can be shoveled into the hopper by three men. With power this capacity is greatly increased.

Drum is 2 feet in diameter and 5 feet long containing a 3 foot five-inch section which delivers sand and 2 foot section which delivers gravel suitable for concrete blocks and other products. The large lumps suitable for poured work such as sidewalks, foundations, etc., pass out at the end.

Most durable galvanized screen of a heavy grade is used. The drum revolves on a heavy shaft and is securely held together by cross arms and iron clamps. These are easily removed and the central spider is adjustable so that the length of either screen can be changed so long as the over-all length of 5 feet is maintained.

The hopper is made of sheet steel, the center shaft, cold rolled steel and the frame of flat and angle steel with cast iron upper crosspieces and bearings.

The machine as a whole is well put together in a substantial manner. Pulley measures 16 inches in diameter, 3-inch face and should be driven at about 175 revolutions per minute. The handcrank can be easily removed. When operated by hand the chain can be removed if desired, although it is not necessary as the pulley will then act as a flywheel and the momentum of it helps in the operation of the screen. Measurements over all are: Length, 7 feet; width, 26 inches; height, 44 inches. Shipping weight, about 425 pounds.

No. 1561—"PANAMA"—SAND SCREEN, complete for hand or power operation. Shipping weight, 450 pounds.

No. 1661—"PANAMA" SAND SCREEN, for hand operation only. Shipping weight, 425 pounds.

"Panama" Concrete Fence Post Molds

The ideal mold for those who want to make plain posts in quantities. These posts have no buttons to receive wire as on the "Panama" Leader Posts, but we furnish a wire tie which permits tightening the wire so that it will not slip up and down.

Sides, top and bottom of this mold are of well braced castings. The division boards are of wood reinforced with band iron. Mold is light enough to handle easily and strong enough to do the work intended. Posts can be made of semi-wet material and tamped, the mold being removed as soon as tamping is completed or made from wet or slush concrete, by leaving the mold around the posts for from three to six hours.

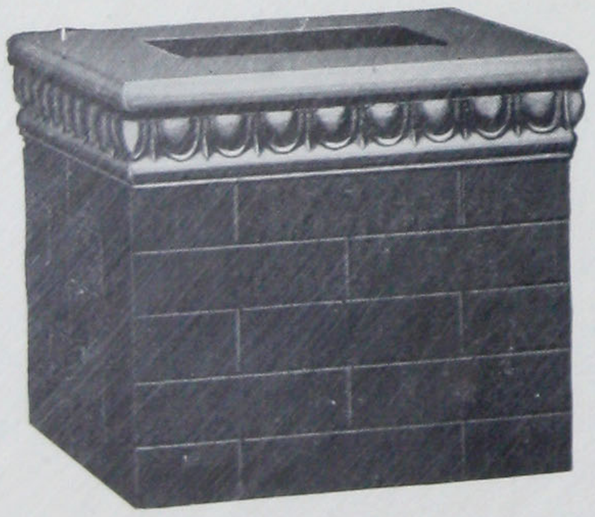
Size—This mold makes posts 7 feet long, 3¼ inches thick, 5 inches wide at bottom and 3¼ inches wide at top. Each gang is furnished with a special tool for placing the reinforcing wires and a wire tie as described on page 35.

No. 9558— "PANAMA" POST MOLD GANG for 6 POSTS. Shipping weight, 140 pounds.

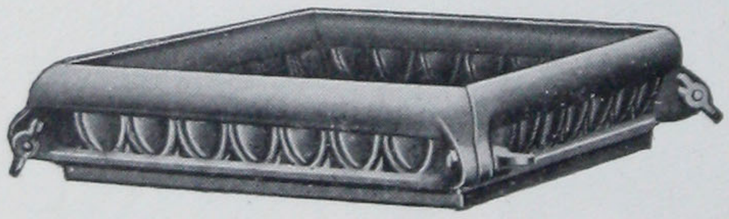
"Panama" Pier and Chimney Mold

Makes Superior Chimneys at a Saving in Cost

The Chimney They Build



The Cap Mold

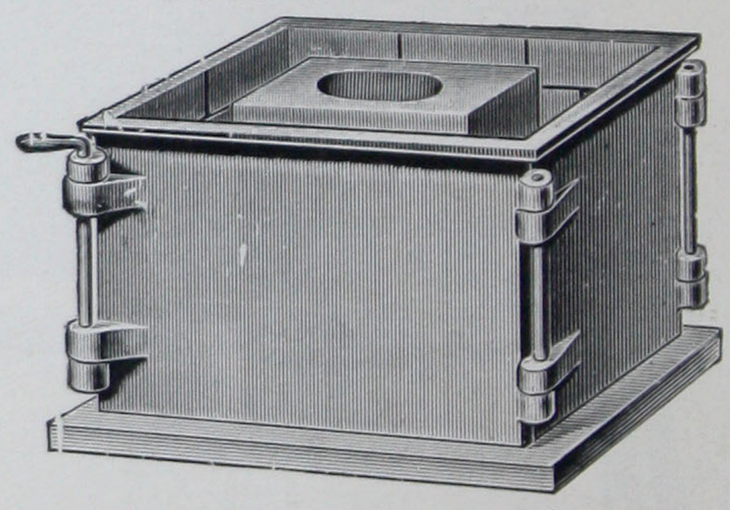


This mold forms a section of chimney, complete at one molding.

These blocks make a safe chimney that is quickly erected and requires no flue lining as do brick chimneys to be equally safe.

Even the man building one house would be justified in making his chimney, gate posts and porch piers with these molds.

The Pier and Chimney Mold



Made of first quality material, accurately fitted and equipped with latch which locks them securely and square. Core withdraws easily, being slightly tapered.

Furnished in brick design, as illustrated plain face or rock face. Cap mold furnished in plain or egg and dart design.

These molds require no pallets.

Chimney Stove Pipe Mold

Chimney Stove Pipe Mold

Can be used in any of the "Panama" Chimney Molds to make an opening in the block for the stove pipe. The opening is a half circle in shape, and two blocks are laid with the openings together, forming a full circular opening for the stovepipe. Made for 6-inch stovepipe only.

No. 458—PIPE CORE. Shipping weight, 5 pounds.

Sizes of the "Panama" Pier and Chimney Mold

BE Sure to Give Catalogue Number and Design of Mold

No. 5057—PIER AND CHIMNEY MOLD, with core. All sizes are 7¾ inches high. **Outside, 16x16 inches,** flue opening, 8x8 inches. Shipping weight, 90 pounds.

No. 5357—PIER AND CHIMNEY MOLD, with core. All sizes are 7¾ inches high. **Outside, 16x20 inches,** flue opening, 8x12 inches. Shipping weight, 100 pounds.

No. 5157—PIER AND CHIMNEY MOLD, with core. All sizes are 7¾ inches high. **Outside, 16x24 inches.** flue opening, 8x16 inches. Shipping weight, 110 pounds.

No. 5257—PIER AND CHIMNEY MOLD, with core. All sizes are 7¾ inches high. **Outside, 20x24 inches,** flue opening, 12x16 inches. Shipping weight, 120 pounds.

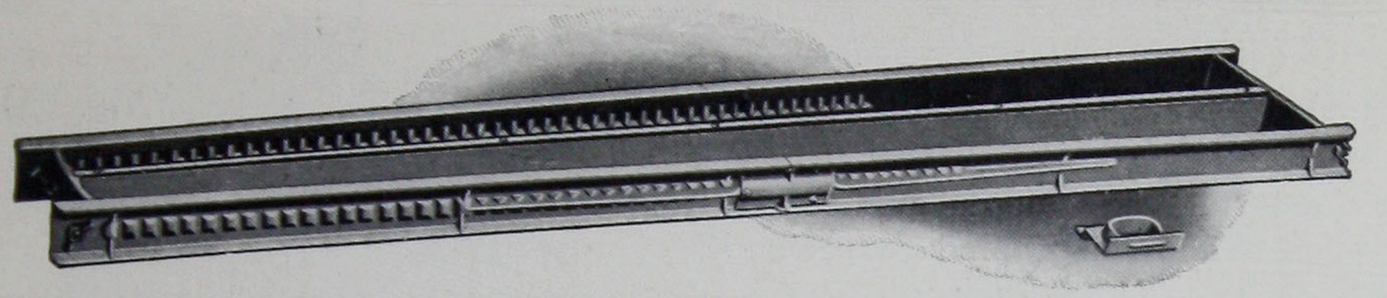
No. 8357—CHIMNEY CAP MOLD. No core furnished. All sizes are 4 inches high. **Outside, 16x16 inches.** flue opening, 8x8 inches. Shipping weight, 50 pounds.

No. 8657—CHIMNEY CAP MOLD. No core furnished. All sizes are 4 inches high. **Outside, 16x20 inches,** flue opening, 8x12 inches. Shipping weight, 55 pounds.

No. 8457—CHIMNEY CAP MOLD. No core furnished. All sizes are 4 inches high. **Outside, 16x24 inches,** flue opening, 8x16 inches. Shipping weight, 65 pounds.

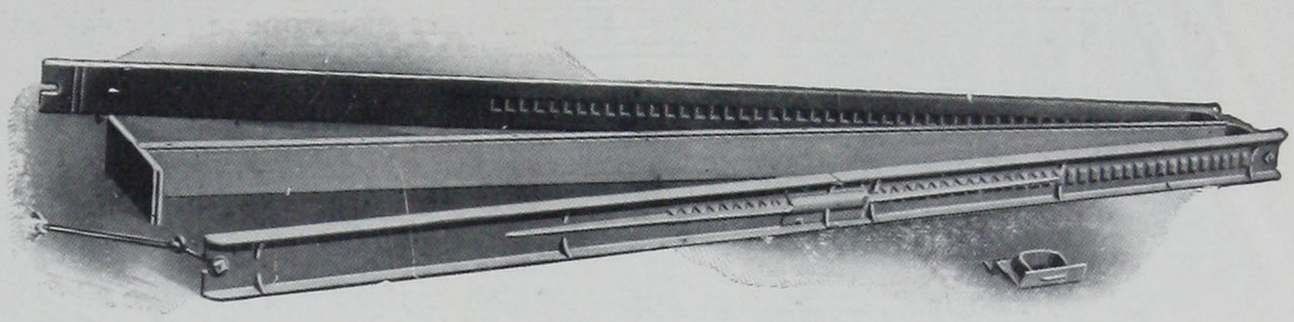
No. 8557—CHIMNEY CAP MOLD. No core furnished. All sizes are 4 inches high. **Outside, 20x24 inches.** flue opening, 12x16 inches. Shipping weight, 80 pounds.

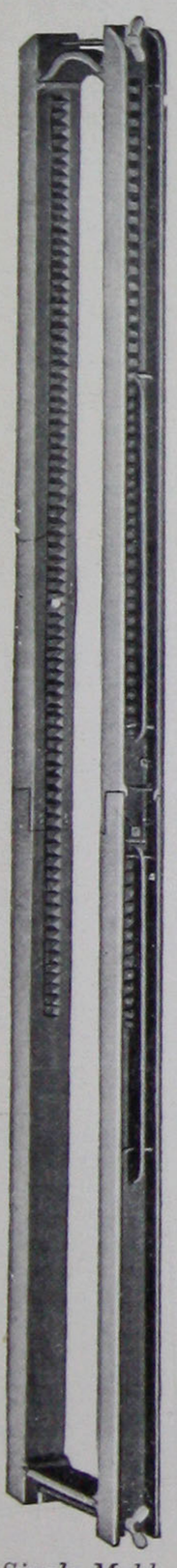
"Panama Leader" Concrete Fence Post Mold



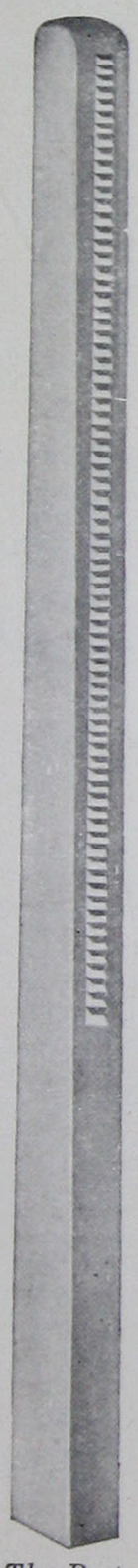
Double Mold released to remove posts

Double Mold clamped ready to receive concrete





Single Mold



The Post it makes

A simple, easily operated mold which makes an exceptionally practical fence post. Anyone can operate the mold and erect strong fences from the post it produces.

Mold is removed as soon as post is made, letting it lie where made until hard enough to move, which takes from twelve to twenty-four hours, depending on the weather. Then the posts are piled for curing, which requires from fifteen to twenty days.

"Panama" Leader Fence Post Molds are made up of two pieces of channel shape casting, securely bolted together, forming the sides of the post, the ends being formed by small castings fitting in grooves. The upper portion of the mold makes a series of knobs or buttons on the post, which prevents the wire from slipping up or down. These knobs or buttons require but little cement to make them, and, unlike grooves or holes in a post, do not weaken it. The mold is securely held together by two thumb bolts and can be opened or closed in an instant.

Posts should be re-inforced with $\frac{3}{8}$ inch iron rods, pieces of barbed wire or straight wire. We furnish a grooving block with each mold which enables you to groove a place in the concrete for the reinforcement. These grooves place the reinforcement the proper distance from the surface of the mold to provide the greatest strength and still have enough concrete around them to prevent rusting.

Any style of wire fencing can be attached to posts made on these molds by using the special wire tie furnished with each mold, as shown below.

Posts are 7 feet long, $3\frac{3}{4}$ inches thick, 5 inches wide at the bottom, tapering to $3\frac{1}{4}$ inches at the top. The large end makes a solid anchor when properly placed in the ground. Weight, each, 75 pounds.

The corner post mold measures 8 feet long and is made in the single style only. It makes a post $8\frac{1}{4}$ inches square at the top and is provided with an adjustable bottom plate any size for $8\frac{1}{4}$x9 inches to $8\frac{1}{4}$x14 inches. These posts are especially adapted for corners, gates and ends of fences where the most strain comes.

Cost of Posts

A good line post is made of a mixture of one part cement to two parts sand and four parts gravel. To make 100 posts requires the following material:

Four barrels cement.
1 1-6 cubic yards sand.
1 1-3 cubic yards gravel.
Labor, one man will make 100 posts a day.
Reinforcement, four pieces to each post.

By using the prices you pay for material you can easily figure the cost from the above. When using the double mold the labor cost is reduced about one-third.

Specifications

No. 9658—"PANAMA" LEADER SINGLE LINE POST MOLD, complete with grooving block and wire tie. Shipping weight, each, 50 pounds.

No. 0059—"PANAMA" LEADER DOUBLE LINE POST MOLD, complete with grooving block and wire tie. Shipping weight, each 60 pounds.

No. 9958—"PANAMA" LEADER CORNER POST MOLD, makes post 8 feet long, $8\frac{1}{4}$ inches square at top and any size from $8\frac{1}{4}$x9 inches to $8\frac{1}{4}$x14 inches at bottom. Complete with wire tie. Shipping weight, each, 180 pounds.

No. 9758—"PANAMA" LEADER FENCE POST REINFORCEMENT. Cut in 7-foot lengths and straightened, about 90 pieces to 100 pounds.

Here is How Easily the Fence is Attached to "Panama" Concrete Posts

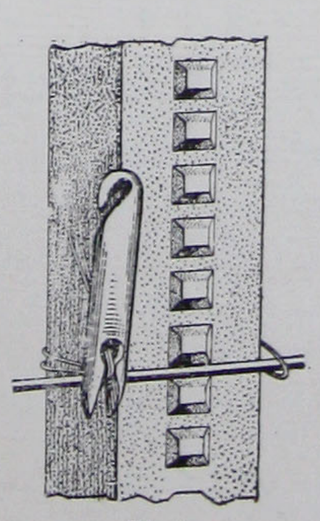
No. 12 or 14 wire is bent in the shape of a hair pin, inserted over wire, twisted around post and inserted through hole in "Panama" Wire Tie. (See illustration).

Tool is then turned upward so that wire will pass through forked end and rest in groove. (See second illustration). A push forward on the tool exacts a strong leverage, which firmly embeds the wire into grooves on the side of post, or into the corners of a plain post. A few more twists of the wire firmly secures the fence against the post.

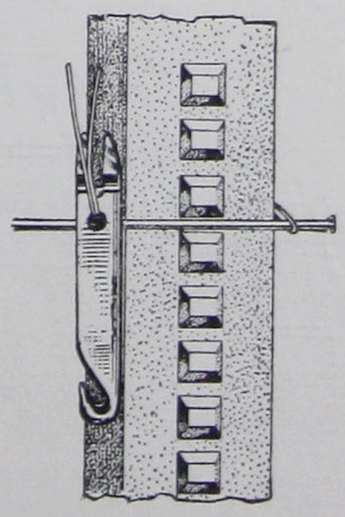
The operation is simple and quick and the fence permanently attached to post.

One tool is furnished with each fence mold but may be purchased separately.

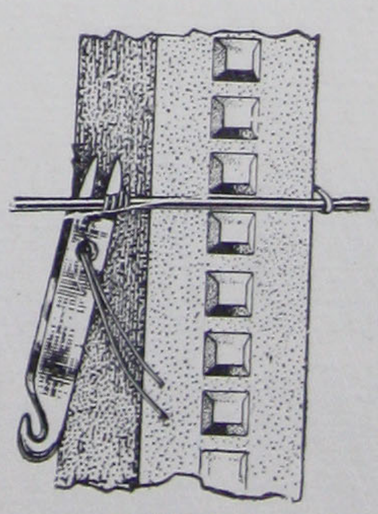
No. 9858—"PANAMA" FENCE WIRE TIE. Shipping weight, 1 pound.



First Operation

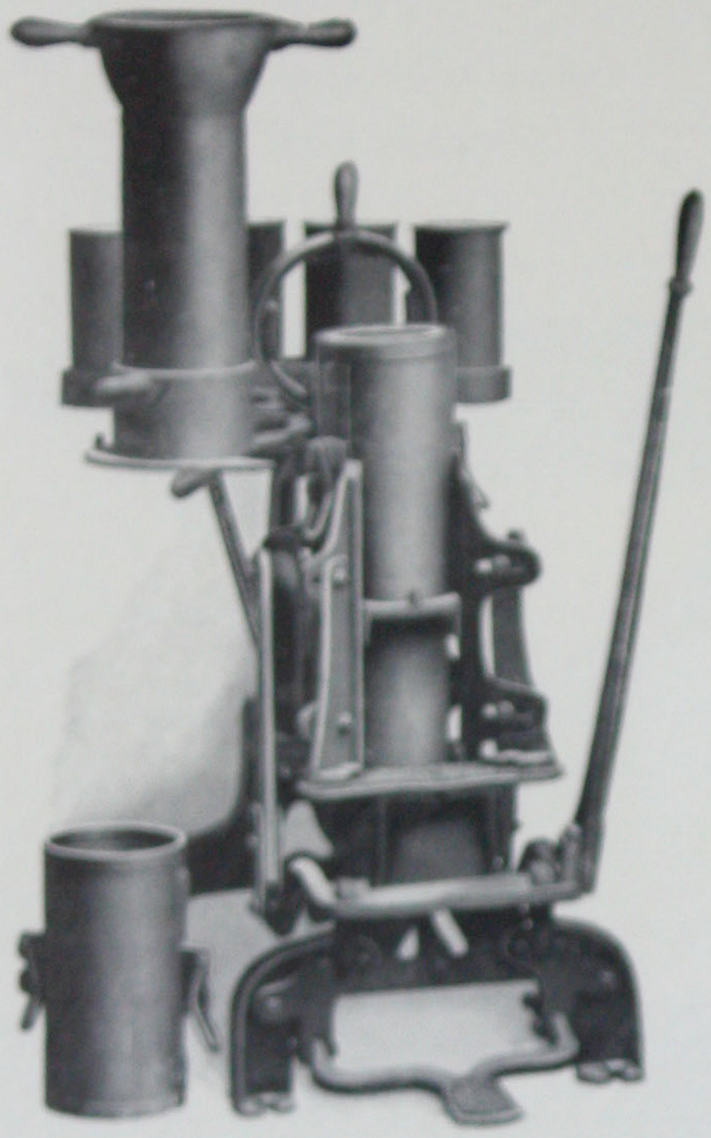


Second Operation



Third Operation

The "Panama" Tile Machine



A simple and efficient machine made throughout of gray iron and steel shafting. All posts are perfectly fitted, well braced and firmly bolted together.

The core is stationary and the finished tile stripped from it. This is the most satisfactory method as it invariably produces perfect tile of proper shape.

The jacket in which the tile is formed is made in two parts, secured by simple latches which are easily opened to release the tile.

The tamper has a hopper-shaped end with two smooth handles. The material is put into the hopper end as you tamp. Little energy is required to tamp properly. Guiding ribs inside insure even feeding of the material and a tile of even consistency throughout. A rack at the rear end of the machine holds the measuring cups. They are of heavy galvanized iron and hold just enough material for one tile. A boy can keep these cups filled, which enables you to make tile faster than if you were to handle the material by means of a shovel. A set of four cups, each holding sufficient material for one tile, is furnished with each machine. No material is wasted. Each machine is fully guaranteed.

Specifications

No. 6858—"PANAMA" TILE OUTFIT, consisting of "Panama" Tile Machine with complete set of attachments for making 4, 5 and 6-inch tile. Shipping weight, 400 pounds.

No. 7058—No. 4 "PANAMA" TILE MACHINE, complete, as described above, makes concrete tile with 4-inch opening, 12 inches long with ¾ inch wall. Shipping weight, 275 pounds.

No. 7258—No. 5 "PANAMA" TILE MACHINE, complete, makes concrete tile with 5-inch opening 12 inches long with ¾ inch wall. Shipping weight, 285.

No. 7458—No. 6 "PANAMA" TILE MACHINE complete, makes concrete tile with 6-inch opening, 12, inches long with ¾ inch wall. Shipping weight, 300 pounds.

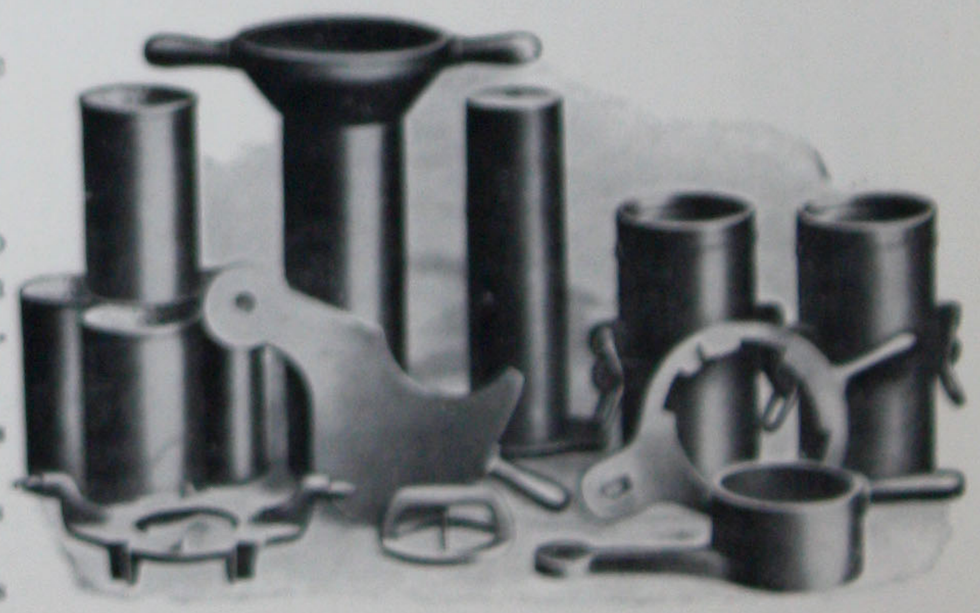
Attachment for Changing Size of Tile

Each Panama Machine listed above is adapted for making one size of tile but various sizes can be made by using the following attachments:

The change over is easily made.

Each set of attachments consists of:

A core, core base, mold supports, tamping hopper, retaining hopper, two jackets and a set of galvanized cups. These attachments are for use only with the "Panama" Tile Machine. You cannot make tile in the attachment alone.



Specifications

No. 7158—SET OF ATTACHMENTS FOR 4-INCH CONCRETE DRAIN TILE. Fits 5 or 6-inch Panama Tile Machine. Shipping weight, 50 pounds.

No. 7358—SET OF ATTACHMENTS FOR 5-INCH CONCRETE DRAIN TILE. Fits 4 or 6-inch Panama Tile Machine. Shipping weight, 75 pounds.

No. 7558—SET OF ATTACHMENTS FOR 6-INCH CONCRETE DRAIN TILE. Fits 4 or 5-inch Panama Tile Machine. Shipping weight, 100 pounds.

"Panama" Tile Cupping Attachment

Consists of a top ring with handle for making groove and a plain bottom ring for making the cup.

The top ring is removed after each tile is made, but the bottom ring must remain in position until tile is hard enough to move. Enough bottom rings should therefore, be purchased to handle the production of one day.

Top Ring

No. 3460—TOP RING FOR 4-inch "PANAMA" TILE MACHINE. Shipping weight, 2 pounds.

No. 3560—TOP RING FOR 5-inch "PANAMA" TILE MACHINE. Shipping weight, 2½ pounds.

No. 3660—TOP RING FOR 6-inch "PANAMA" TILE MACHINE. Shipping weight, 3 pounds.

Bottom Rings

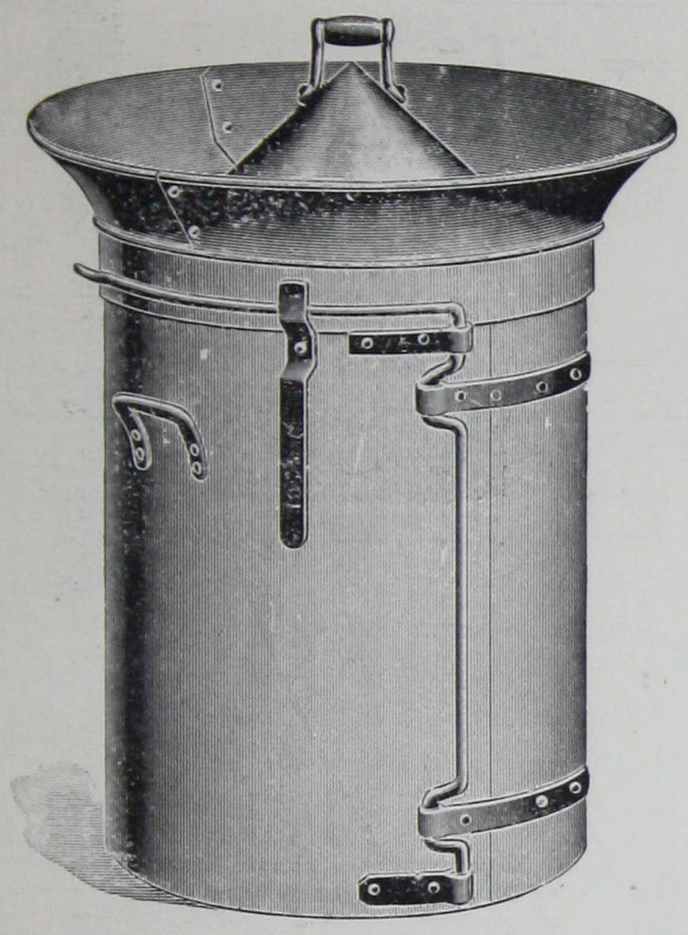
No. 4460—BOTTOM RING FOR 4-INCH "PANAMA" TILE MACHINE. Shipping weight, 1 pound.

No. 4560—BOTTOM RING FOR 5-inch "PANAMA" TILE MACHINE. Shipping weight, 1½ pounds.

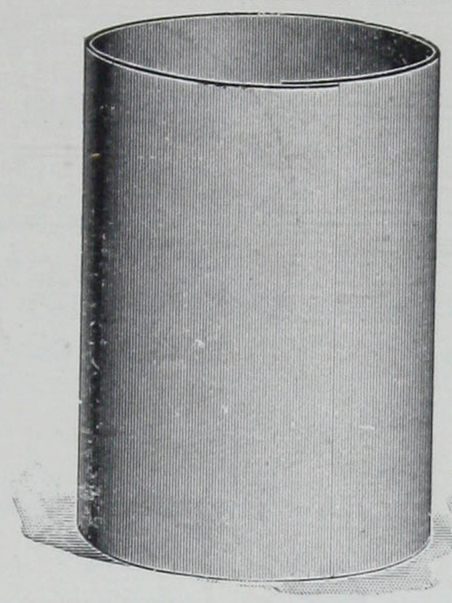
No. 4660—BOTTOM RING FOR 6-inch "PANAMA" TILE MACHINE. Shipping weight, 1½ pounds.

"Panama" Sewer and Drain Tile Molds

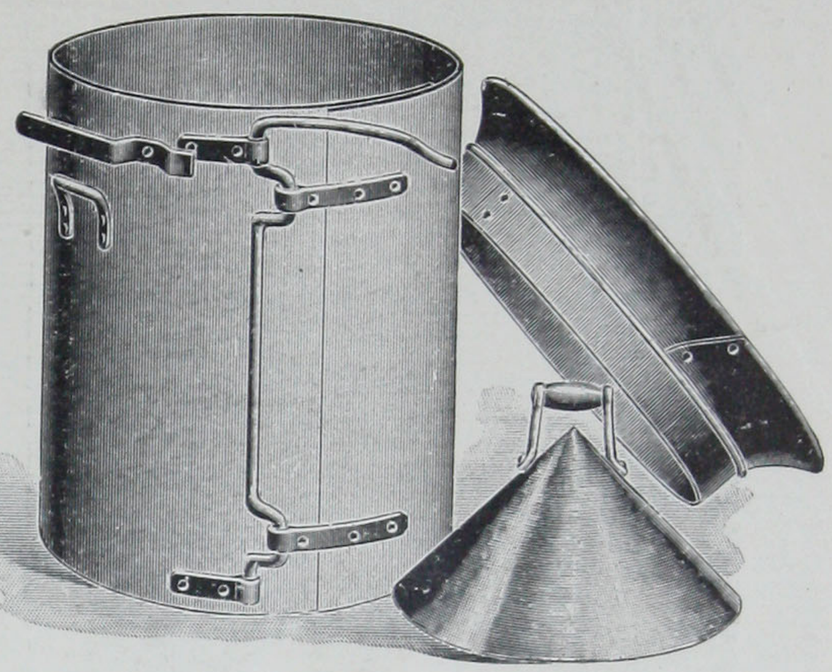
Assembled Mold
4 and 6-inch molds have cast iron jacket



Collapsible Core
4-inch mold is solid



Disassembled Mold



The "Panama" Tile Machine produces great quantities of 4, 5 and 6-inch tile. The molds illustrated above, are recommended for tile of larger diameters, which they make to perfection

These molds are well made, of the best material, and consist of the jacket or outside shell, the core, the core hood and the hopper.

Jackets are strongly constructed of galvanized iron and made collapsible, except the 4 and 6 inch jackets which are of gray iron.

All cores except the 4-inch size are galvanized iron and made with a simple collapsible device. They are quickly collapsed and drawn. The 4-inch core is non-collapsible but made with a slight taper. A stopping plate is furnished so that core can easily be drawn without breaking tile. All cores are sufficiently long to permit use of tongue and groove attachment, if desired.

These molds are guaranteed to be perfect, in material and workmanship, and to give satisfaction in every way.

Specifications

No. 2158—"PANAMA" FOUR-INCH TILE MOLD. Makes tile 4 inches in diameter inside, 12 inches long; wall 1 inch thick. Shipping weight 25 pounds.

No. 2258—"PANAMA" SIX-INCH TILE MOLD. Makes tile 6 inches in diameter inside, 12 inches long; wall 1 inch thick. Shipping weight, 30 pounds.

No. 2358—"PANAMA" EIGHT-INCH TILE MOLD. Makes tile 8 inches in diameter inside, 18 inches long; wall, 1⅛ inches thick. Shipping weight, 50 pounds.

No. 2458—"PANAMA" TEN-INCH TILE MOLD. Makes tile 10 inches in diameter inside, 18 inches long; wall 1¼ inches thick. Shipping weight 70 pounds.

No. 2558—"PANAMA" TWELVE-INCH TILE MOLD. Makes tile 12 inches in diameter inside, 24 inches long; wall 1⅜ inches thick. Shipping weight, 130 pounds.

No. 2658—"PANAMA" FOURTEEN-INCH TILE MOLD. Makes tile 14 inches in diameter inside, 24 inches long; wall 1½ inches thick. Shipping weight, 140 pounds.

No. 2758—"PANAMA" EIGHTEEN-INCH TILE MOLD. Makes tile 18 inches in diameter inside, 24 inches long; wall 1¾ inches thick. Shipping weight, 160 pounds.

No. 2858—"PANAMA" TWENTY-FOUR INCH TILE MOLD. Makes tile 24 inches in diameter inside, 24 inches long; wall 2 inches thick. Shipping weight 190 pounds.

"Panama" Tongue and Grove Attachment

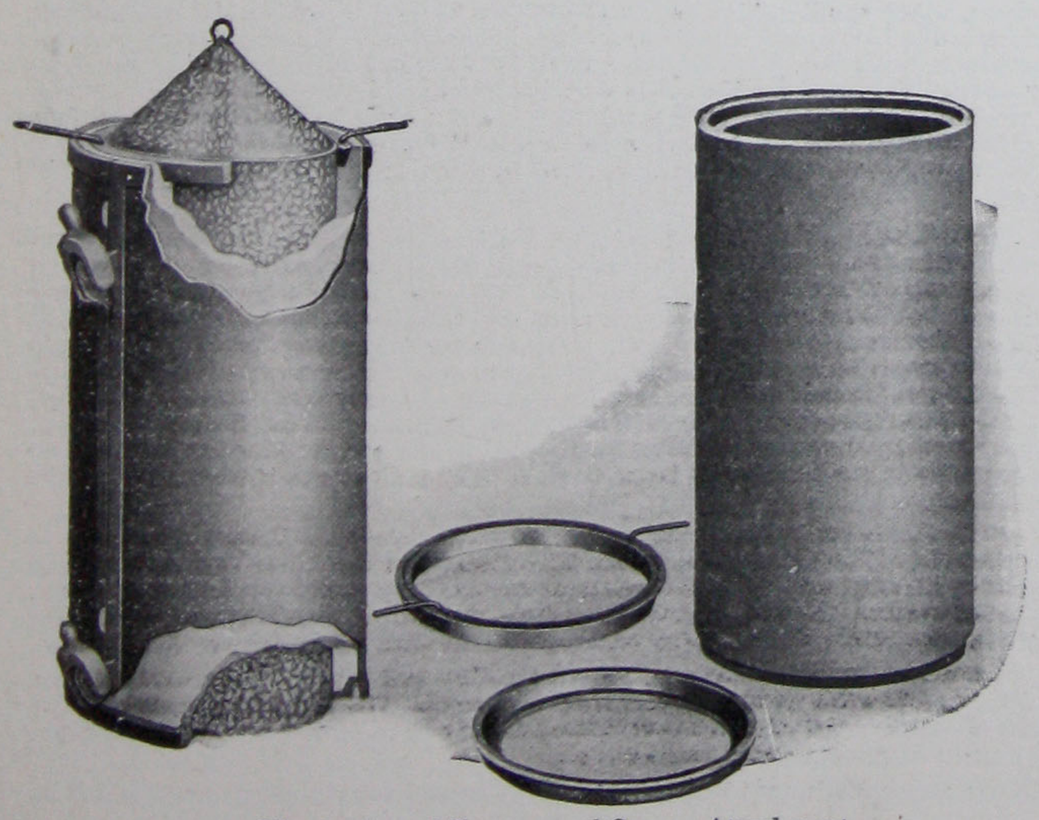
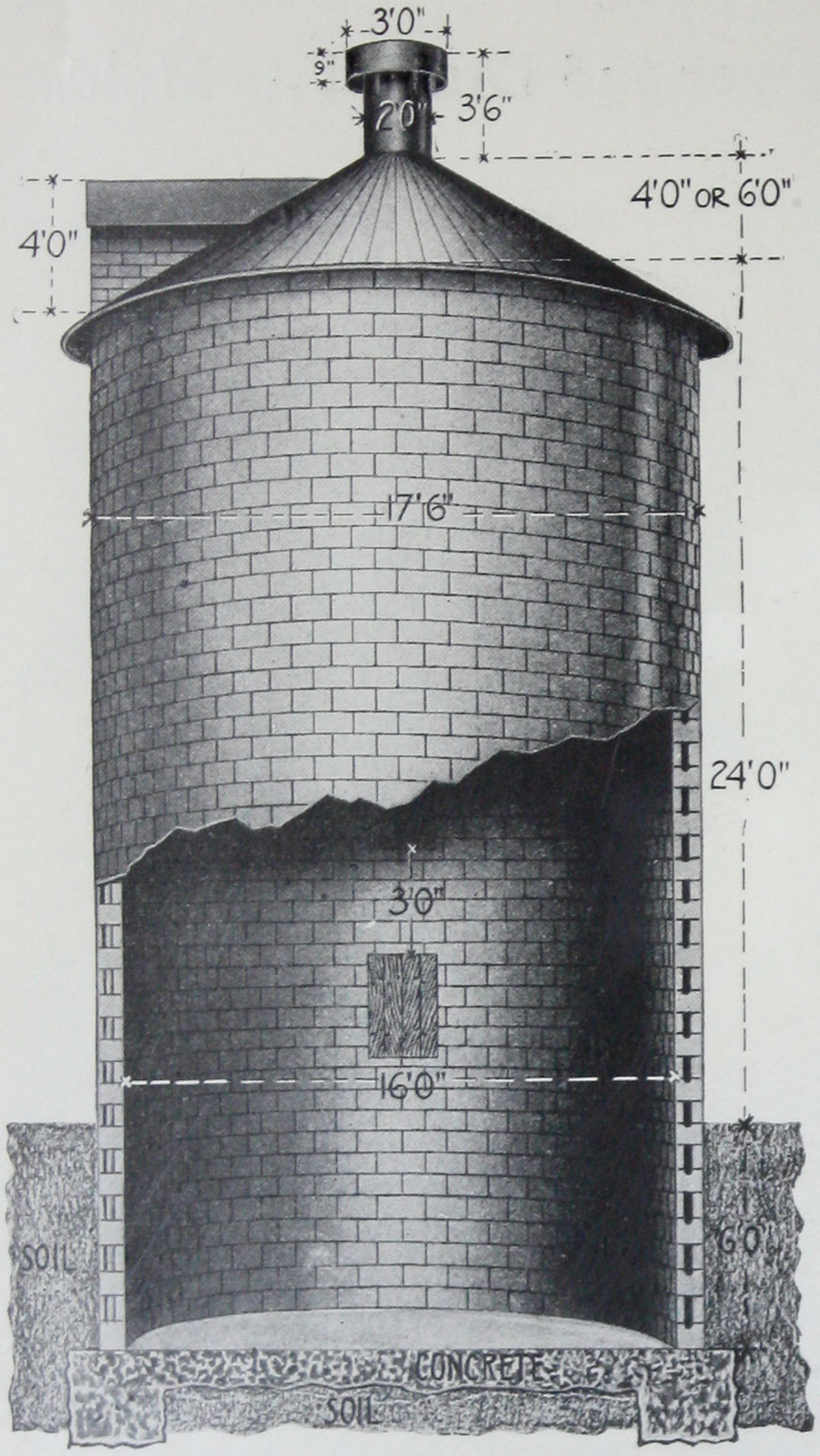


Illustration of Tongue and Groove Attachment

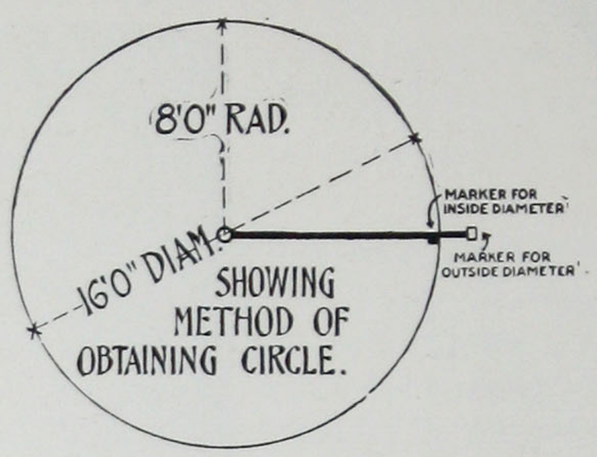
These attachments enable you to make special pipe for purposes where a tight joint is needed. The illustrations clearly show method of using the attachment in our "Panama" tile molds. As the tile must remain on the tongue pallet till hard enough to move, which is about twenty-four hours, it is necessary for you to purchase one pallet for every tile you intend to make in twenty-four hours. Be sure to order the correct size. We do not furnish a tile mold with these attachments.

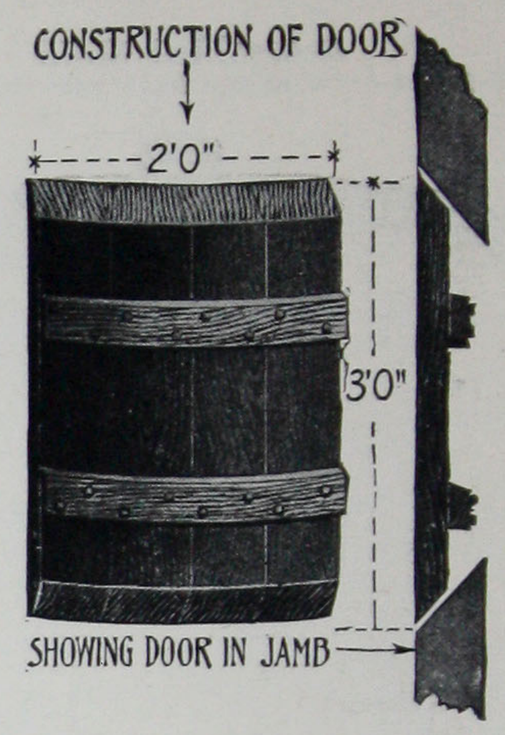


The Size To Build

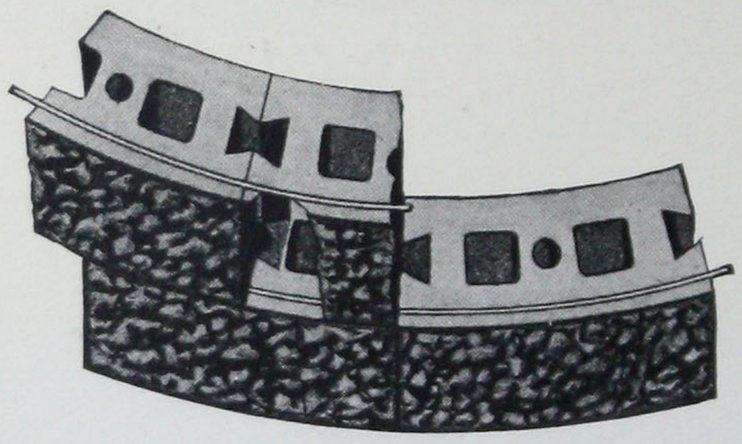
By referring to the following table and figuring 40 to 50 pounds of fodder a day for each cow, you can readily figure how large a silo you will require.

The size of silo to build depends entirely upon the number of cattle you intend to feed, the length of time you want to feed from the silo and whether you are feeding dairy cattle, or raising them for market. Silage should not be exposed to the air for more than twenty-four hours as this causes it to decay. Well settled silage is practically air-tight 1½ to 2 inches below the surface; therefore, in order to keep the silage fresh, the diameter of the silo should be small enough to permit you to feed a full layer 2 to 3 inches thick each day. If the silo is of excessive diameter you will not be able to feed a complete layer and that portion of the layer that remains will be subject to decay or mold. Allowance must be made for the settling of the silage after it is placed in the silo. Under average conditions the settling will amount to from one sixth to one-fifth of the total depth; therefore, to figure on having at least 30 feet of silage in your silo you should build it 35 or 36 feet high to allow for the settling. Remember, your silo should be one-sixth higher than the height given, to allow for settling.





How the Blocks Are Reinforced



Reinforcing is placed in the groove of block. Mortar is then poured into the key openings at end of blocks. This method reinforces the silo against exterior strain, while binding block to block and tier to tier.

Practical Suggestions on Concrete Block Silo Building

First, locate your silo near to the barn in order to save time and labor.

It can be connected with the barn, or not, as desired but should be so situated as to receive as much sun as possible, and yet be protected from the north winds.

Silage does not freeze readily in a concrete silo, and if favorably located will be preserved as well or better than if kept in a silo of any other construction.

Use a stake and rope to lay out the silo as illustrated at top of page. Then excavate on this line at least 5 to 6 feet deep, leveling the bottom of the pit. Next locate the center again and put in stake and draw another circle, which will be exactly 2 inches less than the inside diameter of the silo. Leave the center stake in position until walls are partly up. Excavate outside of this line to a depth of 1 foot to 1 foot 6 inches, depending on the nature of the ground, and fill this trench with a wet mixture of concrete in the proportion of one part cement, three parts sand and six parts gravel or crushed stone.

This forms the footing which supports the walls. Clear up all loose soil in the pit and cover the bottom and footings with a well leveled layer of wet concrete 4 inches thick. When this concrete has set, draw a line on the footing to show the inside dimensions of the completed silo. Lay the blocks to this line, using a mortar consisting of one part cement and two parts clean, sharp sand. Always lay the blocks so the wedge opening on the end comes over the depression in the center of the top of the lower block. In the groove formed in the top of the block, lay a No. 8 wire or two strands of barbed wire, fastening the ends securely so they cannot slip, and see that this wire is embedded in the mortar. If the silo is to be more than 30 feet high, a vertical reinforcement should be used the first 10 feet above ground and may consist of ¾ inch steel or iron bars placed every 24 inches into the core opening of the block, and then the core filled with 1: 2: 4 concrete mixed thin enough to pour.

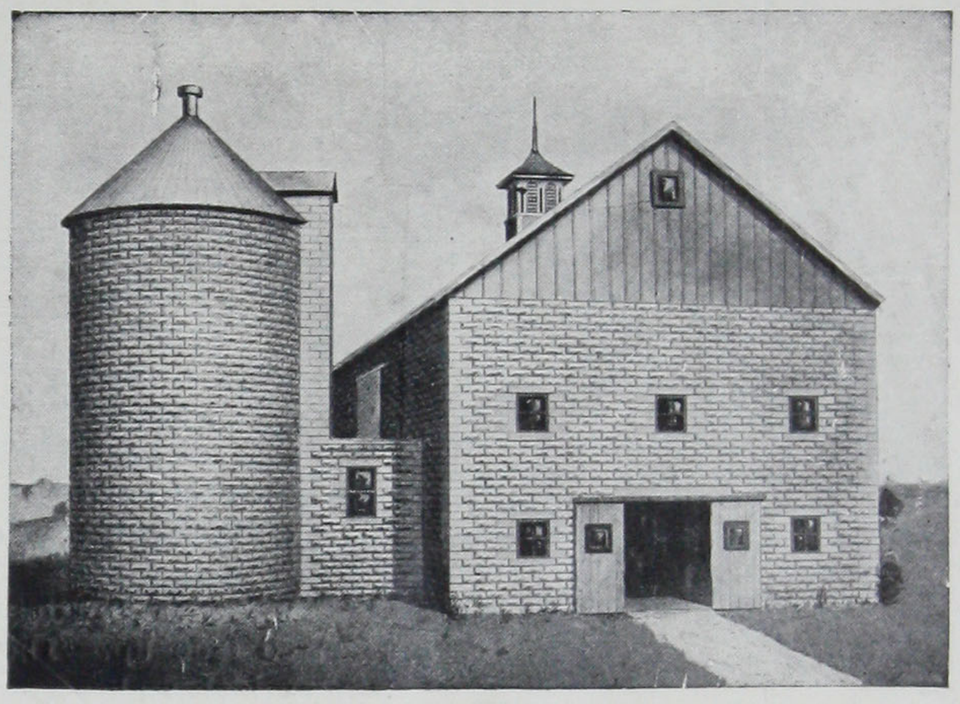
THE DOOR OPENING. This may be either continuous or composed of several individual doors as illustrated. The continuous door is the easiest to build, and is formed of 2x6 inch planks placed 2 feet apart with ½- inch iron pipe ladder steps placed every 2 feet. These pipes should be threaded at both ends and fitted with locknuts to be placed on each side of the door frame to hold it rigid. The reinforcing wires should run through these pipes. Where there is no pipe the reinforcing should be securely attached to the door frame. The door is formed of pieces of 2-inch plank placed from the inside and flush with silo wall. The pressure of the silage will hold them in place. If individual doors are desired, construct them as shown in the illustration, fastening the reinforcing to the door frame. The inner side of the door must be smooth so that it does not interfere with the settling of the silage.

THE ROOF of the silo is built similar to any other roof, only on a circle conforming to the diameter of the silo. The rafters are placed 2 feet apart at the lower end and pitched toward the center at an incline of 4 to 6 feet from the highest point to the lowest edge. When placing the rafters for the roof, construct a gable with door opening large enough for entering and filling the silo. Cover with roofing boards and prepared or felt roofing.

A CUPOLA is not absolutely necessary, as ventilation can be provided through the door opening, although it adds to the appearance of the silo and requires no care. The cupola illustrated is constructed of galvanized iron 2 feet in diameter, 3 feet 6 inches high, having a cap 3 feet in diameter and 9 inches high.

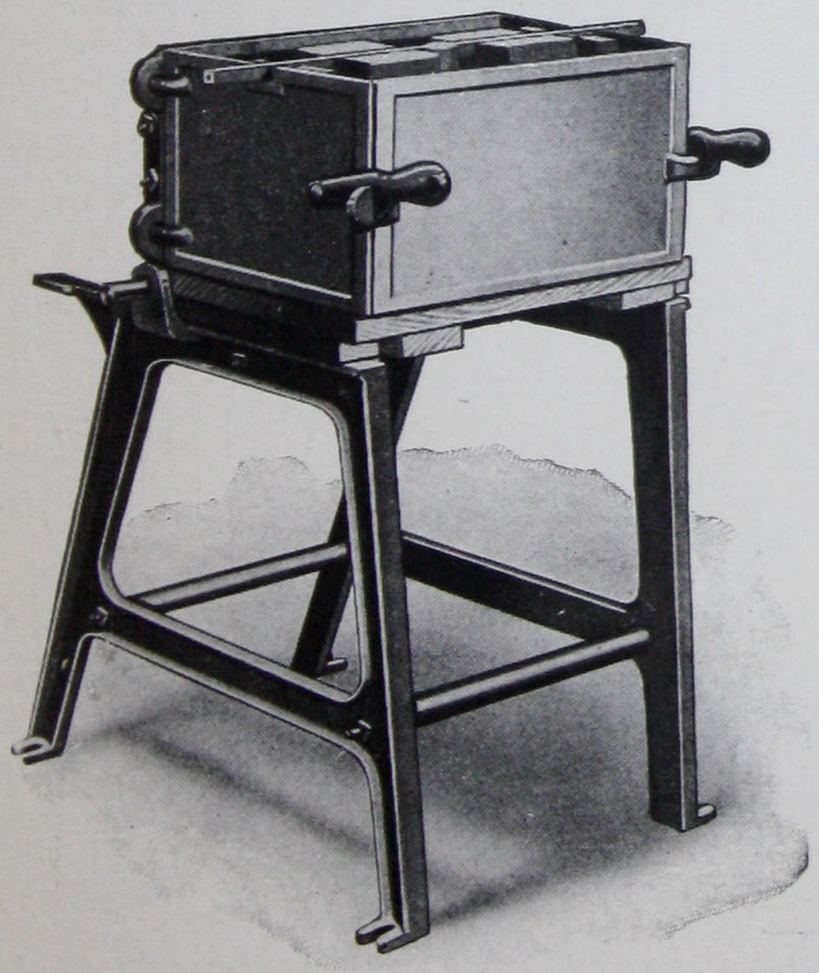
Should you desire any additional information, write us and we will be pleased to advise you fully.

Concrete Block Silos Have Many Advantages



THE cost of making and maintaining a concrete block silo is very low in comparison with other methods of construction. No painting and little if any, repairs are required; there is no danger of the silo shrinking during the summer months and collapsing or blowing over, and there is no possibility of destruction by fire. The silo made of hollow concrete blocks will keep silage in perfect condition.

The "Panama" Concrete Silo Block Machine was especially designed to meet the needs of the farmer making it possible for him to own a concrete silo at very little cost. Machine will make blocks that bind each other together and at the same time bind one course or tier to the one below it. This makes the silo stronger than you can build it when using concrete blocks of a different construction. It puts the concrete block silo on a par with the costly monolithic or poured silo, which is built up with expensive reinforcements. The average farmer cannot build a monolithic silo, but he can build a concrete block silo by using our Silo Block Machine for making the blocks, as they are very easily laid. A groove is formed in the top of each block in which the reinforcement wire, consisting of No. 8 smooth wire or two or three strands of barbed wire is laid. A cement mortar is used to lay up the blocks and the groove containing the wire is filled up with this cement mortar to protect the reinforcement from rust. The key openings between the blocks are filled with this cement mortar, which binds the blocks together and makes the silo just as strong as any expensively built monolithic silo.



Here is a machine on which to make silo blocks economically

The "Panama" Silo Block Machine

Furnished complete with all parts needed to make blocks for a silo of any diameter from 10 to 18 feet; blocks 8x10x16 being used for the first 20 feet of silos more than 36 feet high and 8x8x16 inch blocks above this point.

Each outfit consists of sample wood pallet, tamper, face plates for whole and two half blocks, and dividing plate. Additional pallets can easily be made at small cost.

Rock or panel design is available but rock design will be sent unless otherwise specified.

No. 158—"PANAMA" SILO BLOCK MACHINE, complete. Size of block, 8x8x16 inches. Shipping weight, 130 pounds.

No. 258—"PANAMA" SILO BLOCK MACHINE, complete. Size of block, 8x10x16 inche Shipping weight, 140 pounds.

"Panama" Silo Block Machine—Bench Type

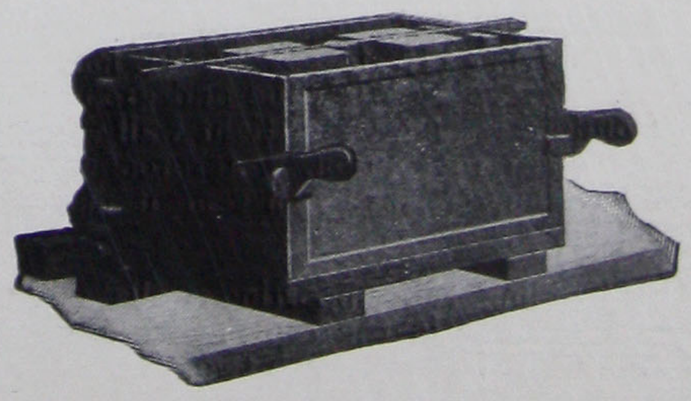
The same machine as above, designed for use on a plank or work bench. Will make block of identical size and quality but is not so convenient to use.

Each outfit includes machine, sample wood pallet, tamper, face plates for whole blocks and two half blocks and dividing plate.

Rock or panel face is available, but rock face will be furnished unless otherwise specified.

No. 5657—"PANAMA" BENCH TYPE SILO BLOCK MACHINE. Size of block, 8x8x16 inches. Shipping weight, 75 pounds.

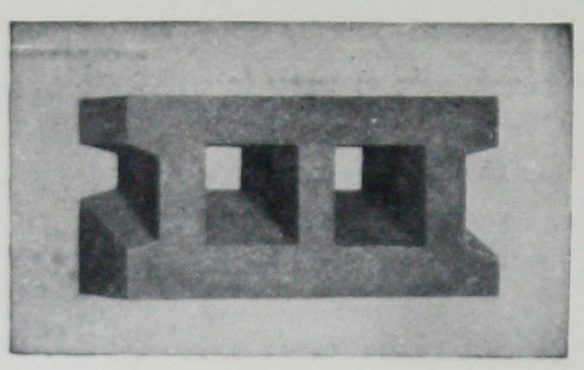
No. 5557—"PANAMA" BENCH TYPE SILO BLOCK MACHINE. Size of block, 8x10x16 inches Shipping weight, 85 pounds.



"Panama" Corncrib Block Machines

Machine With Stand

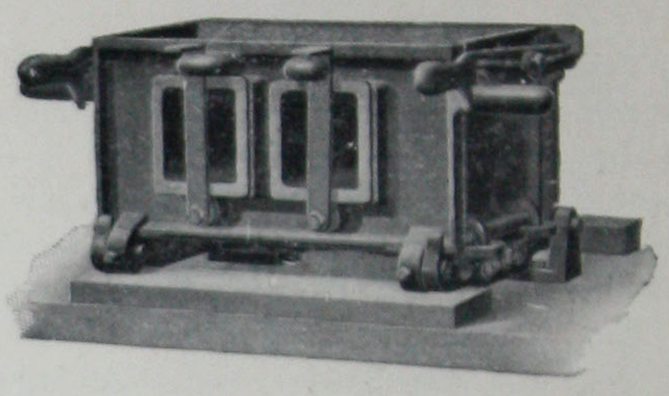
The Block



Makes blocks specially designed for corn cribs. They have opening on the side so designed as to provide ventilation, prevent rain from beating in and drain water to the outside.

Blocks are made with face to front and delivered face up. The bottom plate of mold has a ridge which makes a grcove in the top of block into which reinforcing rod can be placed to protect against internal strain.

Machine Without Stand



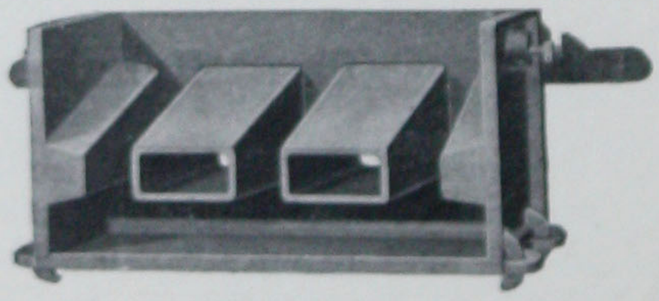
Blocks measure 8x8x16 inches, with ¼-inch mortar joint and have 4x4-inch openings on outside and 3¾x2⅞-inch openings on inside.

These blocks are also very satisfactory for foundation use when laid with openings up and down instead of horizontally in a corn crib. A corn crib built of these blocks with concrete floor will be everlasting and free from rats and mice which generally nest under the floor of wooden corn cribs.

No. 1556—"PANAMA" CORN CRIB BLOCK MACHINE, complete for making whole and half size blocks. Shipping weight, 130 pounds.

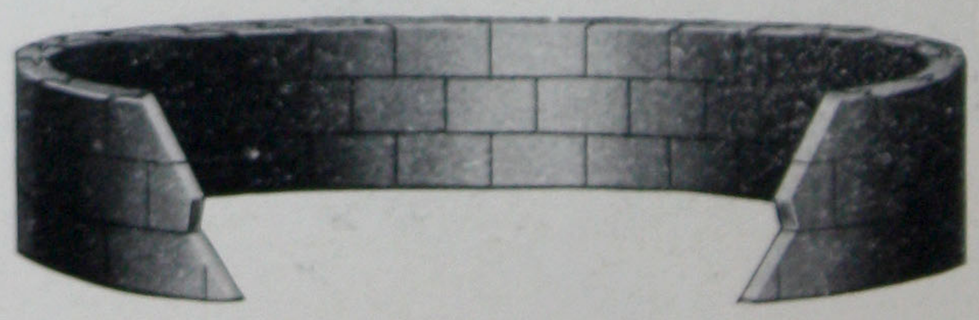
This machine is exactly like the machine at left with the exception of legs. It is made to be fastened to plank or wood bench. While not so convenient, it will turn out blocks equal to the other machine.

No. 1656—"PANAMA" BENCH TYPE CORN CRIB BLOCK MACHINE complete, for making whole and half size blocks. Shipping weight, 85 pounds.



"Panama" Well Curbing Mold

The Mold and the Well It Builds



Makes curved blocks for well curbing or casing, water troughs, cisterns or any curved structure.

A simple mold that produces blocks 3½ inches thick, 8 inches high and from 17¼ to 20½ inches long depending upon size of circle. Blocks have tongue and groove so that they interlock and build a strong, water tight wall when laid up with cement. As an extra precaution, waterproofing compound can be put into the concrete or a rich cement mortar applied to the outside wall.

In building self-supporting walls above ground, a groove should be made in the top of each block and a reinforcing rod of No. 9 wire laid into each two.

Made in plain face only, for circular structures, 3, 4, 6 and 8 feet in diameter, inside measurements.

Specifications

No. 7958—"PANAMA" CURBING MOLD for circular well curbs, tanks, etc., 3 feet in diameter, makes block 17¼ inches long, 3½ inches thick, 8 inches high. Shipping weight, 50 pounds.

No. 7658—"PANAMA" CURBING MOLD for circular well curbs, tanks, etc., 4 feet in diameter, makes blocks 18 inches long, 3½ inches thick, 8 inches high. Shipping weight, 60 pounds.

No. 7758—"PANAMA" CURBING MOLD for circular well curbs, tanks, etc., 6 feet in diameter, mak es blocks 20½ inches long, 3½ inches thick, 8 inches high. Shipping weight, 75 pounds.

No. 7858—"PANAMA" CURBING MOLD for circular well curbs, tanks, etc., 8 feet in diameter, makes blocks 17¼ inches long, 3½ inches thick, 8 inches high. Shipping weight, 50 pounds.